

ID88046868

KF

5640

.0446

1982

ENDANGERED SPECIES ACT IMPLEMENTATION  
ON THE PUBLIC LANDS  
IN CALIFORNIA

By

Richard R. Olendorff  
Endangered Species Coordinator  
U.S. Bureau of Land Management  
2800 Cottage Way  
Sacramento, California 95825  
FTS 468-4701 (916) 484-4701

September, 1982

BLM LIBRARY  
RS 150A BLDG. 50  
DENVER FEDERAL CENTER  
P.O. BOX 25047  
DENVER, CO 80225

## TABLE OF CONTENTS

|   | Page |
|---|------|
| EXECUTIVE SUMMARY . . . . .   | iii  |
| RECOMMENDATIONS FOR FUTURE ACTIONS . . . . .                          | vi   |
| INTRODUCTION . . . . .  | 1    |
| Historical Perspective--Federal Laws. . . . .                         | 1    |
| Historical Perspective--State Laws. . . . .                           | 2    |
| OBJECTIVES AND METHODS . . . . .                                      | 4    |
| IMPACTS OF THE ESA ON BLM PROGRAMS . . . . .                          | 5    |
| Impacts on Commodity-Oriented Bureau Programs . . . . .               | 5    |
| Direct Loss of Commodity Production . . . . .                         | 6    |
| Impacts on the BLM Wildlife Program . . . . .                         | 7    |
| Quantification and Justification of ESA Implementation Costs. . . . . | 7    |
| Should the ESA Be Amended?. . . . .                                   | 9    |
| WORKLOAD ANALYSIS . . . . .   | 10   |
| ESA SECTION 7 CONSULTATION . . . . .                                  | 12   |
| COORDINATION OTHER THAN SECTION 7 CONSULTATION . . . . .              | 15   |
| TRAINING AND INFORMATION TRANSFER. . . . .                            | 16   |
| DISCUSSION AND RECOMMENDATIONS . . . . .                              | 17   |
| Minimizing the Impacts of the ESA on BLM Programs . . . . .           | 17   |
| The Look of Future ESA Compliance . . . . .                           | 20   |
| Improved Consideration of State-listed Species. . . . .               | 21   |
| OVERALL RECOMMENDATION . . . . .                                      | 23   |
| APPENDIX 1 . . . . .  | 25   |
| APPENDIX 2 . . . . .  | 28   |
| APPENDIX 3 . . . . .  | 53   |
| APPENDIX 4 . . . . .  | 54   |
| APPENDIX 5 . . . . .  | 56   |

## EXECUTIVE SUMMARY

Lands administered by the Bureau of Land Management (BLM) in California provide habitat for 82 State or federally listed rare, threatened, or endangered plants and animals (Appendices 1 and 2). BLM has commonly been in the vanguard of efforts to develop methods and procedures for implementing endangered species legislation, including, especially, the development of procedures for implementing section 7 of the Federal Endangered Species Act of 1973 (ESA). Through the years, the Bureau's California State Office has played an important role in developing policies, methods, and procedures later modified for Bureauwide application.

The six objectives of this review were as follows: 1) to analyze the impact of the ESA on BLM programs; 2) to determine the level of past accomplishments; 3) to evaluate the status of the ESA section 7 consultation process; 4) to study State and Federal coordination in general; 5) to establish training and information transfer needs; and 6) to develop recommendations for future action. This review is based primarily on in-person or phone interviews of 31 BLM employees, including the Assistant District Manager, Chief of Resources, Wildlife Biologist, and one Area Manager in each District (Appendix 3). Each interview was conducted from a questionnaire (Appendix 4) which dealt with lines of questionning which correspond to the objectives of this review.

Those interviewed did not place blame for Bureau problems with program implementation directly on the ESA; rather, a recurrent theme was that the ESA together with the Federal Land Policy and Management Act, the National Environmental Policy Act, wilderness legislation, air pollution standards, etc., all have impacted Bureau programs synergistically.

The most serious problems with ESA compliance in California have involved oil and gas development in the southern San Joaquin Valley. During the past 22 months, however, through mitigating factors, such as compensation, project modifications, and informal consultations with the Fish and Wildlife Service (FWS), formal section 7 consultations were avoided in 99 percent of 460 applications for permits to drill in the Bakersfield District.

Examples such as this have led many of the managers interviewed to the conclusion that the ESA has had no major impacts on BLM programs, particularly now that all districts have trained personnel, earlier problems have been resolved, and inventories are more adequate than in years past. In addition, people interviewed during this review could not identify any significant loss of commodity production due to ESA compliance.

It was a general consensus of the interviewees that implementation of the ESA has identifiable funding and manpower costs. These costs are relatively small, justifiable, and not disproportionate to the costs of other Bureau programs. However, the more the Bureau knows about rare, threatened, and endangered species, the more time and money they require, but this is largely offset by the payoff from money spent earlier on species inventories.

Only the workload of Endangered Species Specialists, Wildlife Biologists, and Botanists is changed significantly by ESA implementation, but many of the interviewees qualified their workload statements by noting that in crisis situations or where procedural errors are made, the workload increases. Nonetheless, the thoroughness with which ESA compliance is incorporated into the overall Bureau workload is a significant finding of this review.

About half of the interviewees were confident that the Bureau was complying totally with the act. Most felt that the Bureau was doing an adequate job with ESA compliance through informal and formal consultation processes, but not necessarily with the positive program mandate of section 7. Thus, the Bureau is not violating the law, but it may not be pursuing the intent of the act as it relates to positive programs as aggressively as might be expected. This could be rectified by greater Bureau involvement in recovery programs for species which are already listed.

Most section 7 consultations are effectively handled informally. Also, many mitigative actions are taken to avoid threatened and endangered species conflicts without conducting consultations at all, an approach widely endorsed by BLM biologists and managers alike, as well as the FWS.

The only recurrent difficulty with section 7 consultation encountered by the interviewees concerned time frame. Staff specialists noted, however, that time frame becomes a problem only on a case-by-case basis when an attempt is made to avoid consultation due to deadlines forced either upon Bureau managers or upon constituents. However, if section 7 consultations are anticipated early in project planning, they should never cause a significant delay in project implementation.

The reaction to the question "Should BLM conduct its own section 7 consultations?" was split--8 of 9 biologists saying no, and 13 of 15 managers saying yes. This seems to indicate that BLM biologists have accepted the fact that the FWS has been set up to clarify the biological implications of BLM actions which "may affect" threatened or endangered species or their habitats. Managers feel that BLM biologists have the capability, technical expertise, and professional ethics to do the Bureau's own ESA compliance, and that Bureau employees are closer to on-the-ground project implementation and thus better able to assess impacts.

Most interviewees were uncomfortable with the lack of inventories and other technical information on candidate as well as listed plants. The recent decrease in the availability of technical assistance from the State Office Botanist was frequently cited as significantly decreasing the confidence of the interviewees in the Bureau's ability to comply with the plant mandates of the ESA.

Many interviewees feel that the Bureau's involvement in implementing the intent of State endangered species legislation is inadequate for a number of reasons: 1) there is no clear policy on the Bureau's responsibility toward State-listed species; 2) there are no step-by-step procedures for dealing with such species on a project-by-project basis; and 3) coordination within the CDFG itself often seems inadequate, except where working groups, advisory committees, or task forces have been created.

## RECOMMENDATIONS FOR FUTURE ACTIONS

### Program Development

- Continue giving emphasis to rare, threatened, and endangered species commensurate with their high priority rating in the Bureau's Wildlife Program and multiple-use responsibilities.
- Maintain the long-standing continuity of policies and procedures for implementing the ESA on BLM lands in California by completing the existing Draft California BLM Manual Supplement 6840 for the State Director's signature.
- Increase the Bureau's level of concern for State-listed rare and endangered species by developing 1) a clear policy toward such species and 2) step-by-step procedures for their consideration during preparation of environmental assessments.
- Include in future programming, budgeting, and skill mix considerations the botanical expertise necessary for compliance with the ESA mandates for the conservation of threatened or endangered plants.
- Increase BLM involvement in the recovery programs for the blunt-nosed leopard lizard, San Joaquin kit fox, Peregrine Falcon, Bald Eagle, and California Condor.

### Section 7 Consultation

- Provide State Office quality control and assistance to field offices on all section 7 consultations to ensure that procedures are followed in the most expeditious manner possible.
- Develop State policy on how to determine if a "may affect" situation exists under section 7 of the ESA (section 7 consultation is mandatory in all "may affect" situations).
- Encourage the use of informal consultations to minimize the number of formal section 7 consultations as well as the number of formal listings necessary for candidate species.

### Technical Assistance and Information Transfer

- Develop and maintain species information files in the State Office for all rare, threatened, and endangered animals; do likewise for plants on an as-needed basis.
- Hold two small regional endangered species workshops during late FY 1983 or early FY 1984 to promote continuity between agencies and states in ESA compliance procedures.

Training

- Maintain high concern for implementing the ESA by keeping all BLM managers and specialists informed of their ESA responsibilities, particularly with regard to separating discretionary and nondiscretionary compliance procedures.
- Conduct an ESA awareness program for managers in each district during FY 1983, and follow with any necessary training for staff specialists who have not received earlier section 7 consultation training.

## INTRODUCTION

The public lands of California provide habitat for 12 federally listed endangered animals, 1 federally listed threatened animal, 16 State-listed endangered animals, and 15 State-listed rare animals (Appendix 1). In addition, several federally listed and State-listed plants occur on Bureau of Land Management (BLM) administered lands in California, including 3 federally listed endangered, 29 State-listed endangered, and 21 State-listed rare (Appendix 2). These are the highest numbers (82 total) for the public lands in any state with major BLM land holdings.

### Historical Perspective--Federal Laws

Since passage of the Endangered Species Act of 1973 (ESA) the BLM has pursued an active course of implementing the act. In September of 1974 the Bureau's Washington Office informed all field offices of their responsibilities under the ESA (Instruction Memorandum No. 74-348) and directed them to expedite a survey of endangered species habitats in their respective areas of jurisdiction (Instruction Memorandum No. 74-369). This was done ahead of the major initiating directive from the Secretarial level dated October 16, 1974 (see BLM Instruction Memorandum No. 75-42 dated January 30, 1975). That Secretarial memorandum directed all Assistant Secretaries and Heads of Bureaus and Offices to review their programs to ensure compliance with the ESA, including the appointment of an Endangered Species Liaison Officer in each Bureau or Office to participate in the development of ESA regulations. The Bureau's extensive response to the October 16, 1974 memorandum, including input from California, was submitted on July 24, 1975, following a Washington Office review of BLM procedures and a field examination of on-the-ground actions.

On October 21, 1976, Congress passed the Federal Land Policy and Management Act (FLPMA) which directs the Secretary of the Interior to prepare and maintain on a continuing basis an inventory of all public lands and their resources and other values, giving priority to Areas of Critical Environmental Concern. Multiple-use plans were to be developed and/or revised which consider, among other things, the relative scarcity of the values involved. Rare, threatened, and endangered species are scarce by definition, and their habitats tend to meet the criteria for Areas of Critical Environmental Concern by implication.

The first definitive agency manual on ESA compliance was issued by BLM on November 9, 1976. BLM Manual Section 6840 established policy and guidance for the conservation of threatened and endangered species and their habitats on the Nation's public lands. Though this document needs updating in light of ESA amendments through the years, its fundamental guidance is still in effect today.

The first official Fish and Wildlife Service (FWS) regulations for implementing the "interagency cooperation" provisions of the ESA (section 7) were published on January 4, 1978, over a year after the Bureau's 6840 Manual Section was issued. Though many amendments to the ESA have been

enacted since that time, these 1978 FWS regulations remain in effect. All subsequent amendments have been implemented informally through FWS recommendations and voluntary compliance by other Bureaus and Offices.

In California, compliance with and implementation of the ESA amendments has been successfully directed through the development of guidance issued as instruction memoranda to all California officials. On November 2, 1977 (Instruction Memorandum No. CA-77-256), the California State Director issued a "Policy on Conserving Rare, Threatened, or Endangered Plants on Public Lands in California." This same policy, edited to apply broadly to all BLM offices, was issued about a week later as interim Bureauwide guidance by the Washington Office (Instruction Memorandum No. 77-556). BLM in California issued procedural guidance for implementing the section 7 "Interagency Cooperation Regulations" on January 23, 1978 (Instruction Memorandum No. CA-78-13). This guidance was updated on November 14, 1978 (Instruction Memorandum No. CA-79-46), and on June 14, 1979 (Instruction Memorandum No. CA-79-258), and was again reissued on August 5, 1982 (Instruction Memorandum No. CA-82-312).

Thus, since November 9, 1976, the Bureau's threatened and endangered species policy has been very stable. Certain procedural changes required by ESA amendments and a policy for the protection of endangered plants have been implemented by internal BLM directives in California since then, but these, too, have been virtually the same since early 1978--over four and one-half years. The only substantive deviation was a 17-month period when the authority for initiating section 7 consultations was delegated to California District Managers--a period roughly corresponding to the time when the FWS had an Area Office in Sacramento.

#### Historical Perspective--State Laws

The California Species Preservation Act of 1970 (Fish and Game Code Sections 900-903 and 2050-2055) establishes the intent of the California State Legislature to preserve, protect, and enhance the birds, mammals, fish, amphibians, and reptiles of California. It gives the California Department of Fish and Game (CDFG) responsibility for establishing criteria for determining if a species is rare or endangered in the State. Listing of species or subspecies as rare or endangered in California is entrusted to the California Game and Fish Commission. The act prohibits the importation, take, possession, and sale of State-listed species, but there is only a limited mandate to preserve, protect, or enhance the habitats of such species or subspecies.

The California Native Plant Protection Act of 1977 (Fish and Game Code Sections 1900-1913 and 1925-1926) was passed to preserve, protect, and enhance the rare or endangered native plants of California. The procedures and responsibilities for determining if plant species are rare or endangered, for inventorying them, and for actually listing them are identical to those for animals. In the case of plants, however, CDFG must notify landowners (including BLM) that a rare or endangered plant is growing on their property. There is "critical habitat" provision in this act, but it relates only to State agencies which, in consultation with the CDFG, shall use their authority in furtherance of the purposes of the act. All

landowners (including BLM) who have been notified that State-listed plants occur on their property, shall notify the CDFG at least 10 days in advance of changing the land use in the area. This is to allow for salvage of the plants, if appropriate. Even if CDFG does not salvage such plants within 10 days of notification of a proposed action, the landowner may proceed with that action as soon as the 10-day salvage option expires.

Thus, the habitat protection provisions of State endangered species legislation are weak. It is through the Bureau's endangered plant policies established in California and Bureauwide, the policy statement in BLM Manual Section 6840, the provisions of Sections 201 and 202(c) of FLPMA, and the endangered species mandate of Title II, Section 202(c)(3) of the Sikes Act that protection is provided for State-listed rare and endangered plants and animals on BLM-administered lands. The Sikes Act explicitly states that any program planned, developed, maintained, or coordinated by BLM under the Sikes Act must include provisions for the conservation of all State-listed species.

Other than the general policy statements mentioned above, the BLM in California has no substantive guidance out on conserving State-listed species. While this has not yet created serious legal problems for the Bureau, it has caused considerable confusion and conflict among and between BLM managers and supporting staff. The confusion arises because of the numerous lists of fully protected, sensitive, candidate, rare, threatened, and endangered species. The conflict results from the lack of information and guidance. This sometimes forces biologists into untenable advocate roles whenever seemingly unjustifiable decisions are made by managers. There needs to be as much stability of procedures and policy as there is with federally listed plants and animals.

## OBJECTIVES AND METHODS

This report is based primarily on in-person or phone interviews of 31 BLM employees from the Washington Office, California State Office, California District Offices, and at least one Resource Area Office per District. A list of interviewees is included in Appendix 3. The intent was to interview the Assistant District Manager, Chief of Resources, Wildlife Biologist, and one Area Manager per District. (The Redding District was treated as a District for the purposes of this report.) Additional people from the State Office (Associate State Director, Chief of Resources, staff specialists), several botanists from District Offices, and two key people from the Washington Office were also interviewed.

Each interview was conducted from a questionnaire (Appendix 4) dealing with five lines of questionning which correspond to the five objectives of this review: 1) to analyze the impact of the ESA on BLM programs; 2) to determine the level of past accomplishments; 3) to evaluate the status of the ESA section 7 consultation process; 4) to study State and Federal coordination in general; and 5) to establish training and information transfer needs. A sixth objective was to develop recommendations for future action.

Every effort was made to assure each interviewee that he or she would not be quoted directly and that they could speak about the endangered species program freely--both positively and negatively. No evidence of restraint was detected in any interviewee.

In addition to the interviews, several other documents were used during the preparation of this report. The Bakersfield District commented by memorandum dated May 14, 1982, to the State Director about the expected impact of the closure of the FWS Area Office on the section 7 consultation process. Bakersfield also responded in writing to Instruction Memorandum No. CA-82-234 that announced that this ESA implementaton and compliance review would be conducted. In addition, the review was timed to take full advantage of the legislative process involved in Congressional reauthorization of the ESA. A comparative print of Senate Bill S. 2309 and House Bill H.R. 6133 was available during the preparation of this report. Discussions with people who attended the Congressional hearings and published reviews of these hearings were very useful in corroborating certain statements made by many of the interviewees regarding the impacts of the ESA on BLM programs.

Finally, the author's personal reading files prepared while the Bureau's Washington Office Liaison Officer (October 1974 through April 1977) and the California State Office Endangered Species Coordinator (May 1977 through the present) have been very useful. The perspective provided by involvement in developing the original FWS section 7 regulations in Washington, D.C., and then implementing those regulations in California is unique and invaluable to this report. Many of the issues raised by the interviewees were discussed and resolved between agencies years ago.

## IMPACTS OF THE ESA ON BLM PROGRAMS

### Impacts on Commodity-Oriented Bureau Programs

The tone set by industry representatives at the ESA reauthorization hearings before the Senate Committee on Environment and Public Works, and the House Committee on Merchant Marine and Fisheries was that ESA compliance had slowed their operations and projects. However, the industry representatives could give few, if any, specific examples of such slowdowns, even at a second hearing. Some extra funding has been spent on endangered species inventories and research by industry and government, but even the Tellico Dam is being filled following the rhetorics over the snail darter.

Those interviewed for this review seemed reluctant to point a problematic finger directly at the ESA; rather, a recurrent theme was that the ESA together with FLPMA, the National Environmental Policy Act (NEPA), wilderness legislation, air pollution standards, etc., all have impacted Bureau programs synergistically. Wilderness legislation was cited as having much greater impacts on commodity-oriented Bureau programs, while ESA compliance just fits in to other environmental assessment and planning efforts basic to multiple-use management on the public lands. Threatened and endangered species work is just one of the many programs factored into the Bureau's operations.

In large part this is because, unlike wilderness areas, one can work around endangered species habitats, at least in the short term. An excellent example is the Bureau's timber program in California. In every case in the Susanville District, the potential impacts of timber sales have been mitigated slightly to avoid jeopardy to Bald Eagles (Haliaeetus leucocephalus). The ESA has been no hindrance at all. In the Redding District ESA compliance on behalf of Bald Eagles has slowed one timber sale out of dozens. In another case a short logging season stipulated in the sale may decrease the value of the bids received by BLM. There has been no discernable ESA compliance impacts on the Bureau's range program, and very little impact on off-road vehicle use is apparent. (The Eureka Dunes situation is an exception, while the Algodones Dunes recreation plan provides both for rare and endangered plants and recreationists.)

The most serious problems with ESA compliance in California have involved oil and gas development in the southern San Joaquin Valley, specifically in the Kern County oil fields of the Bakersfield District. The endangered species involved are the San Joaquin kit fox (Vulpes macrotis mutica) and the blunt-nosed leopard lizard (Gambelia silus). Out of approximately 460 applications to drill (APDs) processed in fiscal year 1981 and through July 30, 1982, an estimated 23 have involved endangered species. Through mitigating factors, such as compensation, project modifications, and informal consultations with the FWS, all but 5 formal section 7 consultations (nearly 99 percent) were avoided, and none of these consultations resulted in irreconcilable jeopardy opinions from the FWS or any substantive effect on overall oil and gas development.

Another perspective is provided by the oil and gas leasing program in the California Desert District. The recent Salton Sea oil and gas leasing effort, for which a jeopardy biological opinion was rendered by the FWS, required the dropping of 2,280 acres for the protection of Yuma Clapper Rails (*Rallus longirostris yumanensis*) out of a total of 309,760 acres (0.7 percent). Of 600-700 oil and gas leases processed in the Desert District during fiscal year 1982, about 55 (less than 10 percent) were delayed about five weeks; and this was because of an internal Bureau error in applying section 7 consultation procedures, not because of unrealistic ESA requirements. All but one of these leases have subsequently been offered for lease.

Another example is the recent proposal to lease 876,434 acres in the Modoc National Forest which required BLM concurrence. A "no surface occupancy" stipulation on 800 acres (0.1 percent) of this land avoided a formal section 7 consultation.

Examples such as these have led many of the managers interviewed to the conclusion that the ESA has had no major impacts on BLM programs, particularly now that all districts have trained personnel, earlier problems have been resolved, and inventories are more adequate than in years past.

#### Direct Loss of Commodity Production

The people interviewed during this review could not identify any significant loss of commodity production due to ESA compliance. Though some inconveniences have occurred--primarily related to section 7 consultation procedures--in almost every case there has been a redirection or modification of projects rather than a loss of commodity. The types of losses noted--all of which are very minimal--include the following. In the Redding District one-fourth of an acre was fenced to protect a rare plant. In all northern districts small areas have been deleted from timber sales to protect Bald Eagles, and seasonal harvest restrictions have increased the costs of logging an undeterminable amount in a few cases. Zone 6 of the King Range National Conservation Area has been dedicated to wildlife, and timber harvesting is severely restricted, but this does not follow directly from ESA implementation. With oil and gas development in the southern California districts the designation of areas as "no surface occupancy" could increase the costs of extraction, but no specific examples or costs are available. In general, operators have been moved, but not off of their leases. Also, most problems involve wildcat drilling where the commodity is unknown.

The failure to demonstrate significant loss of commodity production at this time may be a short-term phenomenon, however. To date, industry has commonly just gone elsewhere when endangered species problems have arisen. In the long run--decades, perhaps--ESA compliance may severely impact urban expansion, agricultural development, timber harvest, energy production, and many other types of land use. A prime example is on Red Mountain in the Ukiah District where the plant Arabis mcdonaldiana occurs

on nickel-rich soils. When it becomes commercially feasible to extract the nickel from Red Mountain, a significant loss of commodity may occur, though good land-use planning and multiple-use management could minimize the loss.

Most cases of severe loss of commodity production are related to legislative mandates and policies other than those for endangered species protection. The impacts of wilderness legislation, which result from relatively uncompromising use restrictions in designated areas, have been alluded to earlier in this report. Protection of highly visible fully protected or sensitive species, such as the Spotted Owl and desert tortoise, have curtailed timber harvest and oil and gas development in parts of their respective ranges. One manager interviewed noted that most problems of this nature stem from the lack of guidance on how to deal with species which are prime candidates for future listing as rare, threatened, or endangered, but for which a little more consideration now could minimize the need for listing.

#### Impacts on the BLM Wildlife Program

The greatest impact of the ESA on BLM programs has probably been on the wildlife program itself. The ESA is a good management tool for wildlife protection, because other species and unique habitats can be tied in with endangered species protection. Thus, the endangered species program is well integrated into the development of wildlife habitat management plans and plans for Areas of Critical Environmental Concern (ACECs).

Most wildlife biologists interviewed are not at all concerned with any imbalance within the wildlife program created by the ESA (i.e., where game and other nongame species get proportionately less funding than before the ESA was passed). To the contrary, the ESA has not impeded work on other types of wildlife. Most biologists want to do endangered species work, and they realize that the increase in wildlife funding since 1973 has come largely from other subactivities to do their compliance work (including inventories, field clearances, and consultation workloads). In fact, ESA implementation has enhanced not only the professional standing of many Bureau biologists, but also the reputation of the Bureau itself with several of its more vocal publics.

#### Quantification and Justification of ESA Implementation Costs

It was a general consensus of the interviewees that implementation of the ESA has identifiable funding and manpower costs. These costs are relatively small, largely justifiable, and not disproportionate to the costs of other Bureau programs.

Those costs which are readily quantifiable include inventory contracts, district and area biologists' time, and the time of the State Office Endangered Species Coordinator. But from a broader operational standpoint, implementation of the ESA is just a day-to-day task of a variety of staff specialists which is not even time-coded directly to the

wildlife program. Day-to-day clearances and endangered species monitoring is incorporated into other workloads, such as planning and environmental assessment. Even section 7 consultations are not often quantifiable in terms of dollars and manpower unless they become problematical. This "invisible" endangered species accomplishment is not often recognized outside the Bureau, though it is very real and vital to ESA compliance. Unfortunately, errors are more quantifiable and usually get outside exposure.

It was clear from the interviews that the more the Bureau knows about rare, threatened, and endangered species, the more time and money they require. This is largely offset, however, by the payoff from money spent earlier on species inventories, particularly those for Bald Eagles and Peregrine Falcons (Falco peregrinus) in the northern districts, and San Joaquin kit foxes and blunt-nosed leopard lizards in the Bakersfield District.

The comments of several managers as to whether these costs are justifiable make an interesting and positive case for ESA compliance and implementation. These comments are roughly quoted below.

1. The costs of implementing the ESA are justifiable now because of the existing data base. Six years ago, before the inventories, the costs facing the Bureau seemed high, but now the inventories are paying off. They were a good investment.
2. The costs of implementing the ESA are justifiable because the public wants it. Public need is a commodity, too.
3. The costs are justifiable for the knowns, but there are still a lot of expensive unknowns.
4. Justification depends on one's point of view--on a person's philosophical outlook. But if the government does not start looking at these things, who will?

There were also some reasonable cautions from managers and specialists:

1. Proceduralism provides an opportunity to make the job more complex and costly than it needs to be.
2. The costs of implementing the ESA are generally justifiable, but implementing the act for bugs, spiders, and salamanders is questionable.
3. The costs are justifiable, but outside pressures could push them to being unjustifiable. The ESA is single-use oriented and is supported by single-use interest groups. It is a mechanism for single-use groups to impact multiple-use programs.

An important test of justifiability in the legal arena in which ESA compliance is found is whether the time and money spent has kept the Bureau out of costly lawsuits filed by its constituents and interested publics. The BLM has never gone to court over a threatened or endangered species matter in the nine years since the ESA was passed. (Endangered species have figured very peripherally in large lawsuits involving off-road vehicle use, grazing management, and timber management.) The Bureau has had no Tellico Dams. Unfortunately, this lack of court action is not quantifiable.

#### Should the ESA Be Amended?

Any problems that the interviewees have with the ESA stem primarily from the implementing FWS regulations and not the enabling legislation. Basically, the problems are procedural and relate mostly to section 7 consultation. There is, however, a widespread underestimation by Bureau employees of just how thorough the ESA is and how well the regulations are supported by Solicitors' opinions and court cases. If decisions are not made properly with regard to both biology and procedure, neither the act nor the regulatory process can be faulted. Concerning the act itself, there has been considerable Congressional debate and action, and the regulations are a product of extensive interagency effort within the Department.

Some ESA amendments which the interviewees would like to see involve the following:

1. Closer review of the species being listed (this is included in the 1982 ESA amendments);
2. Deletion of the economic considerations currently necessary in the species listing and Critical Habitat determination processes (also included in the 1982 ESA amendments);
3. Creation of a guaranteed funding source;
4. Incorporation of ESA compliance into NEPA procedures;
5. Application of the act to private lands;
6. Clarification of the Bureau's responsibilities on split estate (where BLM controls the subsurface mineral estate, but not the land surface); and
7. Provision for the Bureau to do its own section 7 consultations (this is not legislatively excluded; counterpart regulations are provided for in the Code of Federal Regulations) (see below).

## WORKLOAD ANALYSIS

Even though as we learn more about rare, threatened, and endangered species the workload increases, only the work of Endangered Species Specialists and Botanists is changed significantly by ESA implementation. Most other interviewees indicated that ESA compliance had changed their workload only slightly or not at all. One is impressed with the thoroughness with which ESA compliance is incorporated into the overall Bureau workload.

Many of the interviewees qualified their workload statements by noting that in crisis situations or where procedural errors are made, the workload increases, even to the point where the "tail seems to be wagging the dog." This was noted by managers and staff specialists at all levels. One District Office Chief of Resources recognized that recent efforts to streamline ESA compliance procedures were helping to alleviate the workload. The ESA compliance workload in past years was significant in some districts, but it is not today as long as the office plans for endangered species and their habitats early in a project.

As might be expected, the frequency with which BLM personnel encounter endangered species issues decreases as one goes up the supervisory chain within a given office from District Wildlife Biologist to District Office Chief of Resources to Assistant District Manager. The Wildlife Biologist deals with rare, threatened, or endangered species at least weekly, the Chief of Resources about every three weeks, and the Assistant District Manager every seven weeks on the average. Area Managers handle endangered species matters every five to six weeks, less frequently than District Office Resource Chiefs who must consider the endangered species issues of three to five Resource Areas. The same trend is apparent in the State Office where the Endangered Species Coordinator considers pertinent matters daily, the Chief of Resources about every two weeks, and the Associate State Director every four to six weeks. Only in Ukiah did the managers indicate that they encountered endangered species issues as often or more often than the Wildlife Biologist.

The key to an analysis of the endangered species workload is the confidence level of Bureau employees that their involvement is sufficient to comply with the ESA. About half of the interviewees were confident that the Bureau was complying totally with the act. Three managers felt that the Bureau was doing an adequate job with ESA compliance through informal and formal consultation processes, but not with the positive program mandate of section 7. Thus, with some species we may be maintaining the minimum legal status; we are not violating the law, but we may not be pursuing the intent of the act as aggressively as might be expected.

The latter circumstance is not, however, completely at the discretion of the Bureau in these times of limited manpower and funding. The Bureau is conducting positive programs for endangered species to the extent possible within existing fiscal constraints and within planning objectives set by each District Manager.

Several interviewees were uneasy about certain specific issues. The ongoing land exchange and asset management programs could create several cases of noncompliance, as could endangered plant conflicts in timber sale areas. It will be difficult to dispose of parcels with threatened or endangered species. Inventory for plants is still a major concern, and the workload related to plant issues will decrease (as has happened with compliance involving vertebrate animals) as the necessary inventories are completed.

Other insights into the work required to comply with the ESA can be inferred from the preceding section of this report concerning impacts of the ESA on Bureau programs. The minimal impacts noted there translate directly to a generally diffuse workload throughout the Bureau's operation--a workload that neither overshadows nor outshines the BLM's multiple-use mandates under FLPMA.

#### ESA SECTION 7 CONSULTATION

Until February 24, 1979, all ESA section 7 consultations for BLM in California were initiated by the State Office in Sacramento. Between that date and August 5, 1982, a period of 17 months, consultations were initiated by the Bureau's District Offices in California. During that 17 months, 8 formal consultations were initiated by districts and 1 (wind energy) was conducted from the State Office. During the previous 17 months, 10 formal consultations were initiated by the State Office. The difference--9 versus 10--is not significant.

The number of informal consultations conducted by the Bureau is impossible to determine because of the rather broad definition of "informal." It is clear from the interviews that most section 7 consultations with the FWS are effectively handled informally. More than that, many mitigative actions are taken--timber sales are modified, parcels in oil and gas leases are dropped out, powerlines are rerouted--to avoid threatened and endangered species conflicts without conducting consultations at all. This approach, which results in a "no affect" determination prior to consultation, is widely endorsed by biologists and managers alike and is preferred by the FWS as well.

The effectiveness of informal consultation does vary slightly depending in each case on the level of expertise available and the subject of the consultation. Effectiveness is high on listed plants and animals, but it is low for candidate plants. Two complaints about informal consultation surfaced during the interviews. First, informals are sometimes treated just like formals with the writing of extensive biological opinions. Second, at the other extreme, some informals have been ineffective due to travel restrictions in the FWS. However, the existence of these two extremes should not detract from the huge number of cases which fall between them for which countless formal consultations have been avoided.

The specific difficulties with section 7 consultation expressed by the interviewees fall into the following general categories:

- Operating in a time frame (90 days) which is inconsistent with the desires and past experience of applicants for licenses and permits to use BLM lands.
- Dealing with time extension requests from the FWS which hinder the Bureau's capability to be responsive to permit requests.
- Minimizing the apparent difficulty some managers have in analyzing biologist recommendations concerning when to consult and when not to consult.
- Accepting the extent to which the FWS, a single-use oriented agency, can dictate what is going to happen on BLM and U.S. Forest Service lands which are managed with a multiple-use philosophy.

- Following up on jeopardy opinions, particularly when recommendations are made by the FWS for monitoring efforts the Bureau cannot afford.
- Overriding the tendency of some managers to delay plans and projects that would benefit threatened or endangered species because of the costs (manpower and funding) of section 7 consultation.

The only recurrent discussion of difficulties by the interviewees concerned time frame. Staff specialists repeatedly indicated that time frame becomes a problem only on a case-by-case basis when an attempt is made to avoid consultation due to deadlines forced either upon Bureau managers (e.g., clearing oil and gas leasing backlogs) or upon constituents (lessees trying to prove-up on a 10-year lease in the ninth year). It is widely recognized that problems with ESA compliance time frames are usually self-inflicted. Threatened and endangered species protection too often is the last consideration to be made or the ESA is the last nondiscretionary mandate to be faced--yet it is an act which includes a consultation period (90 days) twice as long as the NEPA public review period (45 days) and half again as long as the public review period (60 days) provided in the Bureau's own proposed planning regulations.

If section 7 consultations are anticipated early in project planning, they should never cause a significant delay in project implementation. Nearly all interviewees indicated that the FWS has been prompt and responsive in dealing with the Bureau's consultation requests, even those from Bakersfield where three to five years ago unacceptable delays were encountered.

The question of whether the BLM should conduct its own endangered species consultations pursuant to a set of counterpart regulations developed jointly between BLM and the FWS elicited the most profound "choosing of sides" of any question asked during this review. Of the 9 biologists interviewed, 8 were against the Bureau doing its own; 1 was for it. On the other hand, of the 15 managers who responded directly to this question, 13 were in favor and only 2 were against handling consultations completely within BLM.

The biologists cited the following points:

- The BLM would have to establish its own Bureaucracy to do consultations, and it would not significantly change the outcome.
- It is good to have a disinterested agency determine if jeopardy will occur. Otherwise credibility will always be an issue to the Bureau's critics.
- A checks and balance system is needed. Bureau biologists are as good as those in the FWS, but there is too much pressure for commodity production on both biologists and managers for them to be nonbiased.

- Doing our own consultations is not even worth the effort to learn how to write and properly word a biological opinion.
- As long as the Sacramento Endangered Species Office of the FWS remains, most biologists are comfortable with the process.
- It is for the Bureau's own protection, particularly in court or before the Interior Board of Land Appeals, to have the opinion of an outside agency.

This interesting result seems to indicate that BLM biologists have accepted the fact that the FWS has been set up to clarify the biological implications of the jeopardy, Critical Habitat, and positive program mandates in all Bureau projects which may affect threatened or endangered species. This was not the approach taken in Washington, D.C., years ago when the section 7 regulations were being developed, but through those years the FWS consultation process has proven to be biologically, procedurally, and legally appropriate.

Most of the managers interviewed during this review took the opposite side:

- Bureau employees have the capability, technical expertise, and professional ethics to do their own ESA compliance.
- Bureau employees can keep the biological considerations separate from the political processes.
- Because the FWS is single-use oriented, a Bureau analysis will be less biased.
- Objectivity could come from review in other District Offices, the State Office, or even by U.S. Forest Service personnel.
- Bureau biologists are closer to on-the-ground project implementation and are better able to assess impacts.
- If the BLM and the U.S. Forest Service did their own consultations, the FWS could do a better job on consultations from the scores of other Federal agencies.

BLM biologists and managers were closer together on whether the Bureau should do its own consultations in "may affect positively" situations. The consensus was that the Bureau could easily handle biological opinions on Habitat Management Plans and ACEC Management Plans.

Schwartzman, Arnold.

Code name: the long sobbing : the Allies, the Axis, and the victims : an anthology from D-Day to V-E Day -- Los Angeles : Simon Wiesenthal Center, 1994.

160 p. : chiefly ill., ports., facsimis. ; 26 x 26 cm.

Includes bibliographical references.

ISBN: 094305818X.

1. "This book is the companion to the documentary feature film

D810.J4C64 1994

(Cont'd next card)

#### COORDINATION OTHER THAN SECTION 7 CONSULTATION

Generally, coordination with the FWS in California is satisfactory and effective even outside the section 7 consultation process, but coordination with the CDFG is frequently inadequate, especially on matters relating to State-listed rare and endangered species. The latter is attributed to 1) the lack of a clear policy on the Bureau's (and the Department's) responsibility toward State-listed species, 2) the absence of step-by-step procedures for dealing with such species on a project-by-project basis, and 3) sometimes inadequate coordination within the CDFG itself. The first problem can be addressed within BLM; the second requires BLM/CDFG cooperation; and the last may just be an appearance caused by the way CDFG does business through working groups, advisory committees, and special task forces which deal with only one or a few species at a time.

Where working groups do exist, coordination within and outside the CDFG is excellent. Examples include the Peregrine Falcon and Bald Eagle Working Teams, the Interagency Botany Group, the California Raptor Research and Management Advisory Committee, the Coachella Valley Fringe-toed Lizard Advisory Group, and several others.

Coordination with CDFG is also better when Bureau biologists know where the CDFG experts on specific habitats, animals, or plants are located. Most current BLM/CDFG coordination concerning rare and endangered species occurs between specialists on an informal, unwritten basis (not through rigorous formal processes at top management levels), though an annual BLM/CDFG meeting at the State Director/Director level is conducted each year if needed.

Other coordination on State-listed rare and endangered species occurs through the review processes for environmental statements, environmental assessments, ACEC management plans, and habitat management plans. In addition, the Sacramento Office of the CDFG is notified of every section 7 consultation on federally listed species when it is initiated, and copies of all FWS biological opinions are sent to them when received.

One other excellent coordination mechanism with CDFG is through the California Natural Diversity Data Base (CNDDB). The personnel at the CNDDB are very helpful and responsive to the Bureau's needs and will be even more so as more data from the public lands are put into their system.

In addition, the Bureau maintains close coordination with CDFG in the development of Coordinated Resource Management Plans (CRMPs). BLM and CDFG are members of a Statewide effort involving 11 agencies to ensure that planning for on-the-ground actions is fully coordinated. The primary thrust of the CRMP process is to ensure open and honest multiple-agency coordination, cooperation, and consultation at all levels of government.

#### TRAINING AND INFORMATION TRANSFER

The responses of interviewees concerning training, information transfer, and State Office assistance were mixed. If a consensus could be derived on training it would be as follows:

1. A full day's training session on section 7 consultation would be necessary only for new biologists.
2. A two-hour awareness program for managers followed by a slightly longer session for specialists would be useful after the 1982 amendments are passed and the Bureau receives at least an initial analysis of them from the FWS. These sessions should be held in the District Offices.
3. There is need for regional, interagency workshops (e.g., northern California, northern Nevada, and southern Oregon) so that common problems can be discussed by the biologists involved with ESA compliance.
4. The development of a California 6840 Manual Supplement is needed to provide uniformity and to project the professionalism of the Bureau, but it cannot stand alone as a training device.

Several ideas for additional State Office assistance were mentioned by the interviewees. General satisfaction with State Office involvement with rare, threatened, or endangered species was expressed. The development and maintenance of species information files in the State Office was endorsed by all district biologists. The Division of Operations requested good quality control review of environmental assessments and decision documents by the State Office Endangered Species Coordinator, as well as step-by-step procedures for ESA compliance to be used by realty specialists, oil and gas teams, and other energy and minerals management specialists.

Field offices requested more guidance on when to consult. Several biologists and managers expressed a need for continued technical assistance from the State Office on endangered plant issues. Generally, the districts need more information on, more inventories of, and more direct assistance with rare, threatened, and endangered plants. Field offices could use more information on how other agencies are handling ESA compliance, possibly distributed in a newsletter. The development of species management guidelines for widespread application wherever certain species occur was also mentioned as an excellent area for State Office assistance.

## DISCUSSION AND RECOMMENDATIONS

### Minimizing the Impacts of the ESA on BLM Programs

It is clear from the interviews and from other experiences through the years that many of the major impacts of the ESA on BLM programs have resulted from procedural and analytical errors made by the Bureau's own employees. More problems can be anticipated due to efforts to streamline environmental assessment processes, to minimize the amount of inventory done, and to relax the permitting and leasing stipulations which protect endangered species habitats.

Problems can be (and have been to a large degree) alleviated or eliminated through application of the Bureau's "capability, technical expertise, and professional ethics" alluded to by several managers who favored the Bureau doing its own section 7 consultations. The "fear of the unknown process" is not the least bit justified by the experience of BLM in California. Guidance has been stable for several years and readily available to anyone who needed it, and State Office assistance has been only a phone call away since May of 1977.

The key decision in section 7 consultation is whether a proposed action "may affect" a threatened or endangered species or its habitat. The following recommendations relate to making that decision early, in order to minimize the impacts of the ESA on BLM programs.

1. Initiate consideration of threatened or endangered species at the earliest possible point in project development through direct involvement of the Area or District Wildlife Biologist.
2. Evaluate the adequacy of existing information on which the "may affect" decision (i.e., the decision to consult or not to consult) must be based. Rectify any data inadequacies.
3. Make the "may affect" decision using the matrix in Figure 1. (Refer to Instruction Memorandum No. CA-82-312 dated August 5, 1982, for specific step-by-step procedures for analyzing proposed actions for threatened or endangered species involvement.)
4. If the proposed action "may affect" a threatened or endangered species or its habitat positively or negatively, then initiate formal section 7 consultation immediately using procedures also outlined in Instruction Memorandum No. CA-82-312. Informal consultation may precede formal processes in order to eliminate jeopardy through compensation (see below).

California's District Wildlife Biologists are well trained in using both formal and informal section 7 consultation processes. It is unlikely that they will recommend consultation if it is unnecessary. The State Office Endangered Species Coordinator is always available for advice and assistance with complex or controversial situations.

Figure 1. Determination of when to consult with the FWS informally and formally pursuant to 50 CFR 402 (section 7 of the ESA).

|  | Informal Consultation<br>Necessary to Establish Need for Formal Consultation. | Formal Consultation<br>Action According to FWS Opinion & Follow-up Negotiations. | No Consultation Necessary; Implement the Action with appropriate Protective Stipulations. | No Consultation Necessary; Do Not Take the Action*. |
|--|---|--|---|---|
| No T/E Species Present; "No Effect" Determination Justified.                                       |   |  | X   |   |
| T/E Species Known To Occur, But Effects Can Be Eliminated in the Action Area.                      | X   | May Lead to a Facilitated Formal Consultation<br>Or May Show No Need to Consult  | X   |   |
| T/E Species Known To Occur, But Jeopardy Can Be Compensated For Off the Action Area Area.          |   | Will Lead to Facilitated Formal Consultation                                     |   |   |
| T/E Species Known To Occur, But Effects Cannot Be Eliminated; Jeopardy to the Species is Certain.* |   |  |   | X   |

\* If an IBLA test of our decision is likely, we should consult formally with the FWS to develop a better defense of our decision. We could also consult just to verify our jeopardy determination.

The 90-day time frame during which the FWS must respond to section 7 consultation requests begins as soon as the initiating letter reaches their Portland Regional Office. This time frame is established in the ESA itself, not just in regulations. During this 90-day period (or less if a Biological Opinion is rendered earlier), the Bureau must not make any irretrievable commitment of resources in the area affected by the proposed action. This "good faith" consultation provision is also established in the act, not just in regulations. Furthermore, the act reads "shall consult," "shall use the best scientific and commercial data available," "shall confer on proposed species," "shall request a species list for construction projects for which environmental statements are written," "shall conduct a biological assessment for species occurring in construction project areas," and shall have consulted in "good faith" and prepared any necessary biological assessments before even being eligible for an exemption under section 7 of the act. ESA compliance was intended to be nondiscretionary; thus, section 7 consultation is mandatory in "may affect" situations. Acceptance of this one premise and prompt, early initiation of section 7 consultation will virtually eliminate nearly all of the Bureau's procedural problems with the ESA and will minimize the impacts that Bureau programs will experience in the future.

Two very useful aspects of prompt, early initiation of section 7 compliance are informal consultations and the development of compensation packages to accompany formal section 7 consultation requests. Informal consultation is an optional preliminary to formal consultation which has the following objectives: 1) establishing a working relationship between BLM and FWS which may not be attainable in a formal consultation atmosphere; 2) enhancing the exchange of information that may expedite the formal process, if it is necessary; and 3) promoting early development of options and modifications of approaches to identifying and resolving conflicts—even to the point of cooperatively developing compensation to eliminate jeopardy to the species in question or arriving at "no effect" determinations which make formal consultation unnecessary.

Two common misconceptions regarding ESA compliance are that the effects of projects on individual threatened or endangered animals or plants are not important, and that jeopardy to species must be eliminated, not just mitigated. The safest approach to determining the need at least for informal section 7 consultation is as follows:

If threatened or endangered species are known to occupy land which will be affected by a BLM activity or program, and if individuals or populations of such species may be destroyed or displaced by the action, then Bureau officials should not make a "no effect" determination. It should not be a BLM manager's prerogative to dismiss the effects of an activity or program on individual threatened or endangered organisms without first consulting the FWS to clarify the biological implications of the jeopardy and Critical Habitat issues as they pertain to the entire species.

Stonewalling against the decision to consult when the occurrence of threatened or endangered species is known directly circumvents Departmental regulations in 50 CFR 402—and it forbodes problems later in project implementation.

On the subject of mitigation, semantics play a large role. But the semantics are well established. Solicitor's opinions support the notion that jeopardy caused by a proposed action must be eliminated, not just mitigated (i.e., made less severe). This is where compensation comes in. Compensation is the neutralization of the effects of an action thereby eliminating jeopardy. It generally takes two forms. First, the direct effects of an action on the development site could be neutralized by positive programs off-site. The prime example in California has been compensation for the impacts of single or small groups of oil wells in San Joaquin kit fox and blunt-nosed leopard lizard habitat by closing old access roads, rehabilitating abandoned drill pads, limiting access to project areas, avoiding highly sensitive areas, etc. This type of compensation is generally developed during informal consultation with the FWS. It becomes part of the formal consultation package and thereby facilitates (presumably shortens) the formal process.

The second type of compensation occurs after a formal section 7 Biological Opinion is received from the FWS. When feasible, the FWS must recommend reasonable and prudent alternatives to the proposed action which eliminate jeopardy but still allow the project to continue and meet most or all of its original goals. An example of this type of compensation is the dropping out of small parts of large oil and gas leases where impacts on threatened or endangered species may occur upon project implementation or in the future. Another compensation might be putting "no surface occupancy" stipulations on leases, permits, licenses, etc.

Thus, the impacts of the ESA on BLM programs can be effectively minimized through judicious and forthright consideration of and compliance with the intent and provisions of the act itself. Early resolution of the "may affect" decision, effective informal consultation, and development of compensation packages made "good faith" formal section 7 consultation routine and innocuous.

#### The Look of Future ESA Compliance

ESA compliance in the future will continue to have three basic components: inventory, recovery, and section 7 consultation. For most threatened or endangered animals the Bureau has largely completed the inventory phase, though some gaps do remain, and additional inventories may be necessary when new species are listed. The Bureau's threatened or endangered animals are now in need of more funding for recovery as outlined in recovery plans. These plans are either completed, or largely so, for a number of species, including the San Joaquin kit fox, California Condor (*Gymnogyps californianus*), Bald Eagle, Peregrine Falcon, Yuma Clapper Rail, blunt-nosed leopard lizard, desert slender salamander (*Batrachoseps aridus*), and Mohave chub (*Gila mohavensis*). Even within the FWS there is a switch from listing toward recovery as directed by the current administration.

The interviews for this report showed, however, that the BLM in California is still in the inventory phase for plants. Those managers who have had the greatest difficulties with endangered animals in the past, seem to agree that funding expended by the Bureau during the late 1970s

for inventory is now paying off well. They would like the same to happen with plants, though they recognize that the number of candidate plants (those being studied for listing) is large. Nonetheless, confidence in the Bureau's ability to comply with the plant provisions of the ESA is low in some districts. It is recommended that future programming, budgeting, and skill mix considerations include the botanists necessary to ensure that the Bureau can continue to move toward recovery for plants by completing necessary inventories.

An important aspect of doing inventories for candidate plants, besides the knowledge of where they occur, is that the FWS will welcome information indicating that particular candidate species need not be officially listed at all. This will help keep the number of listings down and will maximize the Bureau's management options where today's candidate plants occur.

The endangered species for which affordable management techniques are available--other than total protection of their habitats--and for which the Bureau can provide significant impetus to their recovery include two pairs of sympatric species: the San Joaquin kit fox and blunt-nosed leopard lizard in the Bakersfield District and the Bald Eagle and Peregrine Falcon primarily in the Ukiah District (but also the Bald Eagle in Susanville). Management technology is well developed for the two raptors, and the recovery plans for the kit fox and the lizard make many recommendations for Bureau action. Through the recovery efforts for these four species the Bureau stands to receive the greatest return for funding spent on endangered species outside the compliance/consultation process.

Future section 7 consultation will not differ much from that in the past. Even though more species will be listed and inventories will show more and more threatened and endangered species habitat, the number of formal consultations should not increase significantly because of continual accumulation of experience with how to avoid and compensate for impacts. An increase in the number of informal consultations--even if they result in facilitated formal consultations--would be a positive circumstance, however, assuming it will represent healthier, informed consideration of endangered species and their habitats.

The recent change of delegation of authority for initiating formal section 7 consultations should not change things significantly. District Biologists and District Managers still have the responsibility to conduct informal consultations, to make "may effect" determinations, to develop adequate consultation packages, and to implement or not implement FWS Biological Opinions. Furthermore, all current District Biologists in California were in place before February 24, 1979, when all formal consultations were conducted out of the State Office. Actually, the 17-month period when formal consultations were initiated out of District Offices should serve as excellent training for all involved.

#### Improved Consideration of State-listed Species

Many interviewees feel that the level of involvement in implementing the intent of State endangered species legislation is inadequate. This is primarily due to the lack of policy and guidance other than that in BLM Manual Section 6840 concerning threatened and endangered animals. Six

State endangered animals and 13 State rare animals which occur on BLM lands are not federally listed. Forty-seven of the 50 State-listed plants on BLM lands are not federally listed. Thus, adequate guidance does not exist on 60 (73 percent) of the 82 total rare, threatened, or endangered species on BLM lands in California.

More than guidance is necessary, however. Policy out of the Bureau's Washington Office is not adequate to give State Directors a comfortable course of action. Also, CDFG itself is not dissatisfied with the Bureau's level of consideration of State-listed species, at least at the Sacramento headquarters office. (Most disputes have been minor, professional disagreements between BLM District and Area Biologists and local CDFG biologists.)

In this atmosphere it will take another innovative step by the California State Office to implement new guidance on State-listed species. This certainly would be nothing new, however, since the Bureau's endangered plant policies, current Bureau procedures for section 7 consultation, implementation of the compensation approach to section 7 consultation, and many other more subtle ESA policies and directives have been developed and implemented in California first--to nothing but generally good ends for the Bureau and for endangered species.

#### OVERALL RECOMMENDATION

Enclosure 5 is a draft manual supplement for California to the Bureau-wide Manual Section 6840, Threatened and Endangered Animals. This supplement was developed in 1980, but was tabled due to the uncertain direction of the current administration in endangered species matters and to the fact that the California State Office was going through a change of State Directors. Included in this manual supplement are changes necessary to incorporate all amendments to the ESA through December 28, 1979 (P.L. 96-159), to expand the scope of Bureau Manual Section 6840 to include plants, and to add paragraphs on documentation of ESA compliance efforts, species listing and delisting, essential habitat delineation, recovery team participation, and recovery plan implementation. Guidance on methods to conserve California's State-listed species is also included.

Four major changes are necessary to make this manual supplement appropriate to today's circumstances:

1. Editing for consistency with any new Bureauwide policies and guidance;
2. Editing to bring the delegation of authority for initiating formal section 7 consultation back to the State Office;
3. Incorporating the ESA amendments of 1982; and
4. Incorporating the philosophies of the current State Director, particularly regarding State-listed species.

The first three changes are easy to attain or will be easily attainable once the ESA amendments of 1982 are available. The fourth will require discussions with the State Director. Conceptually, this manual supplement merely implements standard operating procedures for ESA compliance in use for some time and used to train new Bureau Wildlife Biologists in Phoenix on two occasions. However, the direction for dealing with State-listed species is new and not currently being used.

## APPENDIX 1

### FEDERALLY LISTED THREATENED OR ENDANGERED ANIMALS

The following animals 1) are listed as endangered or threatened pursuant to Section 4 of the Endangered Species Act of 1973 as amended and 2) are known to occur or are suspected of occurring on BLM-administered lands in California. The date of this list is January 1, 1982, as published in 50 CFR 17.11 and 17.12.

#### Endangered Animals:

San Joaquin kit fox (Vulpes macrotis mutica)  
01

Brown Pelican (Pelecanus occidentalis)  
05 (occasional)

Aleutian Canada Goose (Branta canadensis leucopareia)  
01, 05, 06

California Condor (Gymnogyps californianus)  
01 (occasional)

Bald Eagle (Haliaeetus leucocephalus)  
01, 02, 05, 06

American Peregrine Falcon (Falco peregrinus anatum)  
01 (occasional), 02 (occasional), 05, 06 (occasional)

Yuma Clapper Rail (Rallus longirostris yumanensis)  
06

California Least Tern (Sterna albifrons browni)  
06 (occasional)

Blunt-nosed leopard lizard (Gambelia silus)  
01

Desert slender salamander (Batrachoseps aridus)  
06 (not verified on BLM lands, but close)

Mohave chub (Gila mohavensis)  
06

Owens pupfish (Cyprinodon radiosus)  
01

#### Threatened Animals:

Coachella Valley fringe-toed lizard (Uma inornata)  
06

STATE LISTED RARE OR ENDANGERED ANIMALS

The following animals 1) are listed as rare or endangered by the California Fish and Game Commission pursuant to the California Endangered Species Act of 1970, and 2) are known to occur or suspected of occurring on BLM-administered lands in California. The animal list is published in At the Crossroads 1980 available from the California Department of Fish and Game, 1416 Ninth Street, Sacramento, California 95814.

Endangered Animals:

Amargosa vole (Microtus californicus scirpensis)  
06

California Brown Pelican (Pelecanus occidentalis californicus)  
05 (occasional)

California Condor (Gymnogyps californianus)  
01 (occasional)

Bald Eagle (Haliaeetus leucocephalus)  
01, 02, 05, 06

American Peregrine Falcon (Falco peregrinus anatum)  
01 (occasional), 02 (occasional), 05, 06 (occasional)

California Least Tern (Sterna albifrons browni)  
06 (occasional)

Elf Owl (Micrathene whitneyi)  
06

Least Bell's Vireo (Vireo bellii pusillus)  
06

Inyo Brown Towhee (Pipilo fuscus eremophilus)  
06

Coachella Valley fringe-toed lizard (Uma inornata)  
06

Blunt-nosed leopard lizard (Crotaphytus silus, recently changed to  
Gambelia silus)  
01

Desert slender salamander (Batrachoseps aridus)  
06 (not verified on BLM lands, but close)

Mohave chub (Gila mohavensis)  
06

Owens tui chub (Gila bicolor snyderi)  
01

Desert pupfish (Cyprinodon macularius)  
06

Rare Animals:

Mohave ground squirrel (Spermophilus mohavensis)  
01, 06

Stephen's kangaroo rat (Dipodomys stephensi)  
06

San Joaquin kit fox (Vulpes macrotis mutica)  
01

Wolverine (Gulo luscus)  
01, 02, 05 (never verified on BLM lands; rarely seen)

California bighorn sheep (Ovis canadensis californiana)  
01

Peninsular bighorn sheep (Ovis canadensis cremnobates)  
06

Yuma Clapper Rail (Rallus longirostris yumanensis)  
06

California Yellow-billed Cuckoo (Coccyzus americanus occidentalis)  
01, 06

Magic gecko (Anarbylus switaki)  
06

Kern Canyon slender salamander (Batrachoseps simatus)  
01

Tehachapi slender salamander (Batrachoseps stebbinsi)  
01

Shasta salamander (Hydromantes shastae)  
06

Limestone salamander (Hydromantes brunus)  
01

Black toad (Bufo exsul)  
01

Rough sculpin (Cottus asperrimus)  
02 (never verified on BLM lands)

Federally Listed Endangered or Threatened Plants Known to Occur on  
 Public Lands Managed by the Bureau of Land Management  
 in California

| <u>Scientific Name</u>  | <u>Common Name</u>            | <u>Family</u> | <u>Status</u> <sup>1/</sup> | <u>District(s)</u> |
|---|-------------------------------|---------------|-----------------------------|--------------------|
| <i>Arabis mcdonaldiana</i> Eastw.   | McDonald's rock-cress         | Brassicaceae  | E                           | Ukiah              |
| <i>Oenothera avita</i> Klein<br><u>ssp. eurekaensis</u> (Monz & Roos) Klein | Eureka Dunes evening-primrose | Oenagraceae   | E                           | California Desert  |
| <i>Swallenia alexandrinae</i> (Swallen)<br>Soderstrom & Decker              | Eureka Dune grass             | Poaceae       | E                           | California Desert  |

---

<sup>1/</sup> Status: E = endangered; T = threatened.

State of California Designated Endangered or Rare Plants  
 Known or Suspected to Occur on Public Lands  
 Managed by the Bureau of Land Management

| <u>Scientific Name</u>   | <u>Common Name</u>      | <u>Family</u>                    | <u>Status</u> | <u>1/</u><br><u>District(s)</u> |
|--|-------------------------|----------------------------------|---------------|---------------------------------|
| <u>Acanthomintha ilicifolia</u> (Gray) Gray  | San Diego thornmint     | Lamiaceae                        | E             | California Desert               |
| <u>Arabis mcdonaldiana</u> Eastw.  | McDonald's rock-cress   | Brassicaceae                     | E             | Ukiah                           |
| <u>Astragalus agnicidus</u> Barneby  | Humboldt milk-vetch     | Fabaceae                         | E             | Ukiah                           |
| <u>Astragalus johannis-howellii</u> Barneby  | Long Valley milk-vetch  | Fabaceae                         | R             | Bakersfield                     |
| <u>Astragalus lentiginosus</u> Dougl.<br>var. <u>sesquimetalis</u> (Rydb.) Barneby   | Sodaville milk-vetch    | Fabaceae                         | E             | California Desert               |
| <u>Astragalus magdalene</u> Greene<br>var. <u>peirsonii</u> (Munz & McBurn.) Barneby | Peirson's milk-vetch    | Fabaceae                         | E             | California Desert               |
| <u>Astragalus monoensis</u> Barneby  | Mono milk-vetch         | Fabaceae                         | R             | Bakersfield                     |
| <u>Bensoniella oregana</u> (Abrams & Bacig.) Morton                                  | Bensoniella             | Saxifragaceae                    | R             | Ukiah                           |
| <u>Bloomeria humilis</u> Hoover  | Dwarf golden star       | Liliaceae<br>(or Amaryllidaceae) | R             | Bakersfield                     |
| <u>Brodiaea coronaria</u> (Salisb.) Engler<br>ssp. <u>rosa</u> (Greene) Niehaus      | Indian Valley Brodiaea  | Liliaceae<br>(or Amaryllidaceae) | E             | Ukiah                           |
| <u>Calamagrostis foliosa</u> Kearn.  | Leafy reed grass        | Poaceae                          | R             | Ukiah                           |
| <u>Calochortus dunnii</u> Purdy  | Dunn's mariposa         | Liliaceae                        | R             | California Desert               |
| <u>Calochortus persistens</u> Ownbey   | Siskiyou mariposa       | Liliaceae                        | R             | Ukiah                           |
| <u>Calystegia stebbinsii</u> Brummitt  | Stebbins' morning glory | Convolvulaceae                   | E             | Bakersfield                     |
| <u>Carex albida</u> Bailey   | White sedge             | Cyperaceae                       | E             | Ukiah                           |

| <u>Scientific Name</u>  | <u>Common Name</u>                           | <u>Family</u> | <u>Status</u> | <u>I/</u> | <u>District(s)</u>                |
|---|--|---------------|---------------|-----------|-----------------------------------|
| <u>Ceanothus roderickii</u> Knight  | Pine Hill ceanothus;<br>Roderick's buckbrush | Rhamnaceae    | R             |           | Bakersfield                       |
| <u>Chlorogalum purpureum</u> Bdg.<br>var. <u>reductum</u> Hoover                                | Gametta Canyon amole                         | Liliaceae     | R             |           | Bakersfield                       |
| <u>Cirsium ciliolatum</u> (Hend.) J.T. Howell   | Ashland thistle                              | Asteraceae    | E             |           | Ukiah                             |
| <u>Clarkia lingulata</u> Lewis & Lewis  | Merced Canyon clarkia                        | Oenagraceae   | R             |           | Bakersfield                       |
| <u>Croton wigginsii</u> Wheeler   | Wiggins' croton                              | Euphorbiaceae | R             |           | California Desert                 |
| <u>Dedeckera eurekensis</u> Reveal & Howell   | July gold                                    | Polygonaceae  | R             |           | Bakersfield;<br>California Desert |
| <u>Delphinium hesperium</u> Gray<br>ssp. <u>cuyamacae</u> (Abrams) Lewis & Epling               | Cuyamaca larkspur                            | Ranunculaceae | R             |           | California Desert                 |
| <u>Dichanthelium lanuginosum</u> (Ell.) Gould<br>var. <u>thermale</u> (Bol.) Spellenburg        | Hot spring panic grass; Geyser's<br>panicum  | Poaceae       | E             |           | Ukiah                             |
| <u>Eriogonum apicum</u> J.T. Howell<br>var. <u>apicum</u>                                       | Ione buckwheat                               | Polygonaceae  | E             |           | Bakersfield                       |
| <u>Eriogonum apicum</u> J.T. Howell<br>var. <u>prostratum</u> Myatt                             | Irish Hill buckwheat                         | Polygonaceae  | E             |           | Bakersfield                       |
| <u>Eriogonum ericifolium</u> T. & G.<br>var. <u>thornei</u> Reveal & Hendrickson                | Thorne's buckwheat                           | Polygonaceae  | E             |           | California Desert                 |
| <u>Eriogonum kelloggii</u> Gray   | Red Mountain buckwheat                       | Polygonaceae  | E             |           | Ukiah                             |
| <u>Eryngium aristulatum</u> Jeps.<br>var. <u>parishii</u> (Coulter & Rose) Math. &<br>Constance | San Diego coyote-thistle                     | Apiaceae      | E             |           | California Desert                 |
| <u>Fritillaria roderickii</u> Knight  | Roderick's fritillary                        | Liliaceae     | E             |           | Ukiah                             |

| <u>Scientific Name</u>   | <u>Common Name</u>               | <u>Family</u>  | <u>Status</u> | <u>1/ District(s)</u> |
|--|----------------------------------|----------------|---------------|-----------------------|
| <u><i>Galium angustifolium</i> Nutt.<br/>    ssp. <u><i>boregoense</i></u> Dempster</u>                  | Borrego bedstraw                 | Rubiaceae      | R             | California Desert     |
| <u><i>Galium californicum</i> H. &amp; A.<br/>    ssp. <u><i>sierrae</i></u> Dempster &amp; Stebbins</u> | El Dorado bedstraw               | Rubiaceae      | R             | Bakersfield           |
| <u><i>Helianthus niveus</i> (Benth.) Bdg.<br/>    ssp. <u><i>tephrodes</i></u> (Gray) Heiser</u>         | Desert sunflower                 | Asteraceae     | E             | California Desert     |
| <u><i>Hemizonia arida</i> Keck</u>   | Red Rock tarweed                 | Asteraceae     | R             | California Desert     |
| <u><i>Hemizonia conjugens</i> Keck</u>   | Otay tarweed                     | Asteraceae     | E             | California Desert     |
| <u><i>Lagthenia burkei</i> (Greene) Greene</u>   | Burke's goldfields               | Asteraceae     | E             | Ukiah                 |
| <u><i>Lewisia congdonii</i> (Rydb.) J.T. Howell</u>  | Congdon's lewisia                | Portulacaceae  | R             | Bakersfield           |
| <u><i>Limnanthes bakeri</i> Howell</u>   | Baker's meadow foam              | Limnanthaceae  | R             | Ukiah                 |
| <u><i>Limnanthes floccosa</i> Howell<br/>    ssp. <u><i>californica</i></u> Arroyo</u>                   | Butte County meadow foam         | Limnanthaceae  | E             | Ukiah                 |
| <u><i>Limnanthes gracilis</i> Howell<br/>    var. <u><i>parishi</i></u> (Jeps.) C. Mason</u>             | Parish's meadow foam             | Limnanthaceae  | E             | California Desert     |
| <u><i>Lomatium ravenii</i> Math. &amp; Const.</u>  | Raven's lomatium; Lassen parsley | Apiaceae       | E             | Susanville            |
| <u><i>Lupinus milo-bakeri</i> C.P. Smith</u>   | Milo Baker's lupine              | Fabaceae       | R             | Ukiah                 |
| <u><i>Machaeranthera lagunensis</i> Keck</u>   | Laguna aster                     | Asteraceae     | R             | California Desert     |
| <u><i>Nitrophila mohavensis</i> Munz &amp; Roos</u>  | Amargosa nitrophila              | Chenopodiaceae | E             | California Desert     |
| <u><i>Oenothera avita</i> Klein<br/>    ssp. <u><i>eurekaensis</i></u> (Munz &amp; Roos) Klein</u>       | Eureka Dunes evening-primrose    | Oenagraceae    | R             | California Desert     |
| <u><i>Orcuttia greenei</i> Vasey</u>   | Greene's orcutt grass            | Poaceae        | E             | Bakersfield; Ukiah    |
| <u><i>Orcuttia pilosa</i> Hoover</u>   | Hairy orcutt grass               | Poaceae        | E             | Bakersfield; Ukiah    |

| <u>Scientific Name</u>   | <u>Common Name</u>          | <u>Family</u>   | <u>Status</u> | <u>District(s)</u> |
|--|-----------------------------|-----------------|---------------|--------------------|
| <u>Orcuttia tenuis</u> Hitchcock   | Slender orcutt grass        | Poaceae         | E             | Ukiah              |
| <u>Pleuropogon hooverianus</u> (L. Benson)<br>J.T. Howell                              | North Coast semaphore grass | Poaceae         | R             | Ukiah              |
| <u>Pogogyne clareana</u> J.T. Howell   | Santa Lucia mint            | Lamiaceae       | E             | Bakersfield        |
| <u>Pseudobahia bahiaefolia</u> (Benth.) Rydb.  | Hartweg's pseudobahia       | Asteraceae      | E             | Bakersfield        |
| <u>Sanicula saxatilis</u> Greene   | Rock sanicle                | Apiaceae        | R             | Bakersfield        |
| <u>Senecio layneae</u> Greene  | Layne's butterweed          | Asteraceae      | R             | Bakersfield        |
| <u>Sidalcea covillei</u> Greene  | Owens Valley checker-mallow | Malvaceae       | E             | Bakersfield        |
| <u>Sidalcea hickmanii</u> Greene<br>ssp. <u>parishi</u> (Rob.) C.L. Hitchc.            | Parish's checker-mallow     | Malvaceae       | R             | Bakersfield        |
| <u>Sidalcea oregana</u> (Nutt.) Gray<br>ssp. <u>hydrophila</u> (Heller) C.L. Hitchcock | Water-loving checker-mallow | Malvaceae       | E             | Ukiah              |
| <u>Silene campanulata</u> Wats. ssp. <u>campanulata</u>                                | Red Mountain campion        | Caryophyllaceae | E             | Ukiah              |
| <u>Stipa lemmonii</u> (Vasey) Scribn.<br>var. <u>pubescens</u> Crampton                | Crampton's spear grass      | Poaceae         | R             | Ukiah              |
| <u>Swallenia alexandrinae</u> (Swallen) Soderstrom & Decker                            | Eureka Dune grass           | Poaceae         | R             | California Desert  |

1/ Status: E = endangered; R = rare.

SENSITIVE PLANTS  
BUREAU OF LAND MANAGEMENT, CALIFORNIA

| <u>Scientific Name</u>   | <u>Common Name</u>             | <u>Family</u>                    | <u>Status</u> | <u>District(s)</u> |
|--|--------------------------------|----------------------------------|---------------|--------------------|
| <u>Abronia alpina</u> Bdg.   | Alpine sand-verbena            | Nyctaginaceae                    | SC            | Bakersfield        |
| <u>Acanthomintha ilicifolia</u> (Gray) Gray  | San Diego thornmint            | Lamiaceae                        | SC            | California Desert  |
| <u>Agave utahensis</u> Engelm.<br>var. <u>eborispina</u> (Hester) Breit.             | Ivory-spined agave             | Liliaceae<br>(or Agavaceae)      | SC 2/         | California Desert  |
| <u>Agrostis microphylla</u> Steud.<br>var. <u>hendersonii</u> (Hitchc.) Beetle       | Henderson's bent grass         | Poaceae                          | SC            | Ukiah, Susanville  |
| <u>Allium hoffmannii</u> Ownbey  | Beegum onion                   | Liliaceae                        | SC            | Ukiah              |
| <u>Allium sanbornii</u> Wood<br>var. <u>tuolumnense</u> Ownbey & Aase                | Rawhide Hill onion             | Liliaceae<br>(or Amaryllidaceae) | SC            | Bakersfield        |
| <u>Alopecurus aequalis</u> Sobol.<br>var. <u>sonomensis</u> Rubtzoff                 | Sonoma alopecurus              | Poaceae                          | SC            | Ukiah              |
| <u>Ammobroma sonorae</u> Torr. ex Gray   | Sand foxtail                   | Lennoaceae                       | SC 2/         | California Desert  |
| <u>Amsinckia vernicosa</u> Hook. & Arn.<br>var. <u>furcata</u> (Susak) HooverinJeps. | Green fiddleneck               | Boraginaceae                     | SC 2/         | Bakersfield        |
| <u>Antirrhinum subcordatum</u> Gray  | Dimorphic snapdragon           | Scrophulariaceae                 | SC            | Ukiah              |
| <u>Arabia blepharophylla</u> H. & A.   | Coast rock-cress               | Brassicaceae                     | SC 2/         | Ukiah              |
| <u>Arabis breweri</u> Wats.<br>var. <u>austinae</u> (Greene) Roll.                   | Chico Creek rock-cress         | Brassicaceae                     | SC            | Ukiah              |
| <u>Arabis constancei</u> Roll.   | Constance's rock-cress         | Brassicaceae                     | SC            | Susanville         |
| <u>Arabis modesta</u> Roll.  | Modest rock-cress              | Brassicaceae                     | SC            | Ukiah              |
| <u>Arctomecon merriami</u> Cov.  | Desert-poppy; white bear-poppy | Papaveraceae                     | SC 2/         | California Desert  |

| <u>Scientific Name</u>   | <u>Common Name</u>              | <u>Family</u> | <u>Status</u> | <u>1/</u> | <u>District(s)</u> |
|--|---------------------------------|---------------|---------------|-----------|--------------------|
| <u>Arctostaphylos auriculata</u> Eastw.  | Mt. Diablo manzanita            | Ericaceae     | SC            | 2/        | Bakersfield        |
| <u>Arctostaphylos benitoensis</u> Roof   | San Benito manzanita            | Ericaceae     | SC            | 3/        | Bakersfield        |
| <u>Arctostaphylos luciana</u> Wells  | Santa Lucia manzanita           | Ericaceae     | SC            | 2/        | Bakersfield        |
| <u>Arctostaphylos montereyensis</u> Hoover   | Monterey manzanita              | Ericaceae     | SC            |           | Bakersfield        |
| <u>Arctostaphylos morroensis</u> Wies. & Schreib.  | Morro manzanita                 | Ericaceae     | SC            |           | Bakersfield        |
| <u>Arctostaphylos uva-ursi</u> (L.) Spreng.<br>ssp. <u>myrtifolia</u> (Parry) Roof           | Ione manzanita                  | Ericaceae     | SC            |           | Bakersfield        |
| <u>Arctostaphylos otayensis</u> Wies. & Schreib.   | Otay manzanita                  | Ericaceae     | SC            | 2/        | California Desert  |
| <u>Arctostaphylos pilosula</u> Jeps. & Wies.<br>ssp. <u>pilosula</u>                         | Santa Margarita manzanita       | Ericaceae     | SC            |           | Bakersfield        |
| <u>Arctostaphylos pungens</u> HBK.<br>ssp. <u>montana</u> (Eastw.) Roof                      | Mount Tamalpais manzanita       | Ericaceae     | SC            |           | Ukiah              |
| <u>Arctostaphylos rupestris</u> Jeps. & Wies.  | Shagbark manzanita              | Ericaceae     | SC            |           | Bakersfield        |
| <u>Arnica venosa</u> Hall  | Veiny arnica; Mt. Shasta arnica | Asteraceae    | SC            |           | Ukiah              |
| <u>Astragalus agnicidus</u> Barneby  | Humboldt milk-vetch             | Fabaceae      | SC            |           | Ukiah              |
| <u>Astragalus cimae</u> Jones<br>var. <u>cimae</u>   | Cima milk-vetch                 | Fabaceae      | SC            |           | California Desert  |
| <u>Astragalus cimae</u> Jones<br>var. <u>sufflatus</u> Barneby                               |                                 | Fabaceae      | SC            |           | California Desert  |
| <u>Astragalus clarianus</u> Jeps.  | Napa milk-vetch                 | Fabaceae      | SC            |           | Ukiah              |
| <u>Astragalus deanei</u> (Ryd.) Barneby  | Deane's milk-vetch              | Fabaceae      | SC            |           | California Desert  |
| <u>Astragalus douglasii</u> (T. & G.) Gray<br>var. <u>perstrictus</u> (Rydb.) Munz & McBurn. | Round-podded milk-vetch         | Fabaceae      | SC            |           | California Desert  |

| <u>Scientific Name</u>   | <u>Common Name</u>                            | <u>Family</u>  | <u>Status</u> <u>1/</u> | <u>District(s)</u> |
|--|---|----------------|-------------------------|--------------------|
| <u>Astragalus jaegerianus</u> Munz   | Coolgardie milk-vetch;<br>Lane Mt. milk-vetch | Fabaceae       | SC                      | California Desert  |
| <u>Astragalus johannis-howellii</u> Barneby  | John's milk-vetch;<br>Long Valley milk-vetch  | Fabaceae       | SC <u>2/</u>            | Bakersfield        |
| <u>Astragalus lentiginosus</u> Dougl.<br>var. <u>coachellae</u> Barneby              | Coachella Valley milk-vetch                   | Fabaceae       | SC                      | California Desert  |
| <u>Astragalus lentiginosus</u> Dougl.<br>var. <u>micans</u> Barneby                  | Shiny milk-vetch                              | Fabaceae       | SC                      | California Desert  |
| <u>Astragalus lentiginosus</u> Dougl.<br>var. <u>piscinensis</u> Barneby             | Fish Slough milk-vetch                        | Fabaceae       | SC                      | Bakersfield        |
| <u>Astragalus lentiginosus</u> Dougl.<br>var. <u>sesquimetralis</u> (Rydb.) Barneby  | Sodaville milk-vetch                          | Fabaceae       | SC                      | California Desert  |
| <u>Astragalus magdalena</u> Greene<br>var. <u>peirsonii</u> (Munz & McBurn.) Barneby | Peirson's milk-vetch                          | Fabaceae       | SC                      | California Desert  |
| <u>Astragalus mohavensis</u> Wats.<br>var. <u>hemigyrus</u> (Clokey) Barneby         | Darwin Mesa milk-vetch                        | Fabaceae       | SC                      | California Desert  |
| <u>Astragalus monoensis</u> Barneby  | Mono milk-vetch                               | Fabaceae       | SC                      | Bakersfield        |
| <u>Astragalus pseudiodanthus</u> Barneby   | Tonopah milk-vetch                            | Fabaceae       | SC <u>2/</u>            | Bakersfield        |
| <u>Astragalus subvestitus</u> (Jeps.) Barneby  | Kern County milk-vetch                        | Fabaceae       | SC                      | Bakersfield        |
| <u>Astragalus tegetarioides</u> Jones  | Deschutes milk-vetch                          | Fabaceae       | SC                      | Susanville         |
| <u>Atriplex vallicola</u> Hoover   | Lost Hills saltbush                           | Chenopodiaceae | SC                      | Bakersfield        |
| <u>Benitoa occidentalis</u> (Hall) Keck  | Benitoa                                       | Asteraceae     | SC                      | Bakersfield        |
| <u>Bensoniella oregana</u> (Abrams & Bacig.) Morton                                  | Bensoniella                                   | Saxifragaceae  | SC                      | Ukiah              |

| <u>Scientific Name</u>   | <u>Common Name</u>      | <u>Family</u>                    | <u>Status</u> | <u>1/</u> | <u>District(s)</u>                |
|--|-------------------------|----------------------------------|---------------|-----------|-----------------------------------|
| <u>Bloomeria humilis</u> Hoover  | Dwarf golden star       | Liliaceae<br>(or Amaryllidaceae) | SC            |           | Bakersfield                       |
| <u>Brickellia knapiana</u> E. Drew   | Knapp's brickellia      | Asteraceae                       | SC            | 2/        | California Desert                 |
| <u>Brodiaea coronaria</u> (Salisb.) Engler<br>ssp. <u>rosenii</u> (Greene) Niehaus | Indian Valley brodiaea  | Liliaceae<br>(or Amaryllidaceae) | SC            |           | Ukiah                             |
| <u>Brodiaea orcuttii</u> (Greene) Hoover   | Orcutt's brodiaea       | Liliaceae<br>(or Amaryllidaceae) | SC            |           | California Desert                 |
| <u>Calamagrostis crassiglumis</u> Thurb.   | Thurber's reed grass    | Poaceae                          | SC            | 2/        | Ukiah                             |
| <u>Calamagrostis densa</u> Vasey   | Dense reed grass        | Poaceae                          | SC            |           | California Desert                 |
| <u>Calamagrostis foliosa</u> Kearn.  | Leafy reed grass        | Poaceae                          | SC            |           | California Desert                 |
| <u>Calochortus dunnii</u> Purdy  | Dunn's mariposa         | Liliaceae                        | SC            |           | Ukiah                             |
| <u>Calochortus excavatus</u> Greene  | Inyo mariposa           | Liliaceae                        | SC            |           | California Desert                 |
| <u>Calochortus longebarbatus</u> Wats.<br>var. <u>longebarbatus</u>                | Long-haired star-tulip  | Liliaceae                        | SC            |           | Bakersfield                       |
| <u>Calochortus monanthus</u> Ownbey  | Shasta River mariposa   | Liliaceae                        | SC            |           | Susanville                        |
| <u>Calochortus obispoensis</u> Lessona   | San Luis mariposa       | Liliaceae                        | SC            |           | Bakersfield                       |
| <u>Calochortus persistens</u> Ownbey   | Siskiyou mariposa       | Liliaceae                        | SC            |           | Ukiah                             |
| <u>Calochortus striatus</u> Parish   | Alkali mariposa         | Liliaceae                        | SC            | 2/        | Bakersfield,<br>California Desert |
| <u>Calycadenia fremontii</u> Gray  | Fremont's calycadenia   | Asteraceae                       | SC            |           | Ukiah                             |
| <u>Calyptidium pulchellum</u> (Eastw.) Hoover                                      | Mariposa pussy paws     | Portulacaceae                    | SC            |           | Bakersfield                       |
| <u>Calystegia stebbinsii</u> Brummitt  | Stebbins' morning glory | Convolvulaceae                   | SC            |           | Bakersfield                       |

| <u>Scientific Name</u>   | <u>Common Name</u>                           | <u>Family</u>    | <u>Status</u> | <u>1/</u> | <u>District(s)</u> |
|--|--|------------------|---------------|-----------|--------------------|
| <u>Camissonia benitensis</u> Raven   | San Benito evening-primrose                  | Onagraceae       | SC            |           | Bakersfield        |
| <u>Camissonia hardhamiae</u> Raven   | Hardham's evening-primrose                   | Onagraceae       | SC            |           | Bakersfield        |
| <u>Carex albida</u> Bailey   | White sedge                                  | Cyperaceae       | SC            |           | Ukiah              |
| <u>Carex obispoensis</u> Stacey  | San Luis sedge                               | Cyperaceae       | SC            | 2/        | Bakersfield        |
| <u>Carex paucifructus</u> Mkeze.   | Sierra sedge                                 | Cyperaceae       | SC            |           | Susanville         |
| <u>Castilleja latifolia</u> B. & A.<br>ssp. <u>mendocinensis</u> Eastw.          | Mendocino Coast paintbrush                   | Scrophulariaceae | SC            |           | Ukiah              |
| <u>Caulanthus simulans</u> Payson.   | Payson's calanthe                            | Brassicaceae     | SC            |           | California Desert  |
| <u>Caulostrema jaegeri</u> (Rollins) Rollins                                     | Jaeger's caulostrema                         | Brassicaceae     | SC            |           | California Desert  |
| <u>Ceanothus confusus</u> J.T. Howell  | Rincon ceanothus                             | Rhamnaceae       | SC            |           | Ukiah              |
| <u>Ceanothus divergens</u> Parry   | Calistoga ceanothus                          | Rhamnaceae       | SC            |           | Ukiah              |
| <u>Ceanothus roderickii</u> Knight   | Pine Hill ceanothus;<br>Roderick's buckbrush | Rhamnaceae       | SC            |           | Bakersfield        |
| <u>Centaurium nemophilum</u> Reveal, Broome, &<br>Beatley var. <u>nemophilum</u> | Spring-loving centaury                       | Gentianaceae     | SC            |           | California Desert  |
| <u>Chenactis parishii</u> Gray   | Parish's pincushion flower                   | Asteraceae       | SC            |           | California Desert  |
| <u>Chlorogalum grandiflorum</u> Hoover   | Red Hills soaproot                           | Liliaceae        | SC            |           | Bakersfield        |
| <u>Chlorogalum purpureum</u> Bdg.<br>var. <u>purpureum</u>                       | Purple amole                                 | Liliaceae        | SC            |           | Bakersfield        |
| <u>Chlorogalum purpureum</u> Bdg.<br>var. <u>reductum</u> Hoover                 | Camatta Canyon amole                         | Liliaceae        | SC            |           | Bakersfield        |
| <u>Chorizanthe breweri</u> Wats.   | Brewer's spineflower                         | Polygonaceae     | SC            |           | Bakersfield        |

| <u>Scientific Name</u>   | <u>Common Name</u>           | <u>Family</u>    | <u>Status</u> | <u>1/</u> | <u>District(s)</u> |
|--|------------------------------|------------------|---------------|-----------|--------------------|
| <u>Chorizanthe howellii</u> Goodm.   | Howell's spineflower         | Polygonaceae     | SC            |           | Ukiah              |
| <u>Chorizanthe rectispina</u> Goodm.   | One-awned spineflower        | Polygonaceae     | SC            |           | Bakersfield        |
| <u>Chorizanthe spinosa</u> Wats.   | Mohave spineflower           | Polygonaceae     | SC            |           | California Desert  |
| <u>Cirsium camptyon</u> H.L. Sharsm.   | Mt. Hamilton thistle         | Asteraceae       | SC            |           | Bakersfield        |
| <u>Cirsium ciliolatum</u> (Hend.) J.T. Howell  | Ashland thistle              | Asteraceae       | SC            |           | Ukiah              |
| <u>Cirsium crassicaule</u> (Greene) Jeps.  | Slough thistle               | Asteraceae       | SC            |           | Bakersfield        |
| <u>Clarkia amoena</u> (Lehm.) Nels. & Macbr.<br>ssp. <u>whitneyi</u> (Gray) Lewis & Lewis    | Whitney's clarkia            | Onagraceae       | SC            | 2/        | Ukiah              |
| <u>Clarkia borealis</u> E. Small<br>ssp. <u>arida</u> E. Small                               | Northern clarkia             | Onagraceae       | SC            |           | Ukiah              |
| <u>Clarkia lingulata</u> Lewis & Lewis   | Merced Canyon clarkia        | Onagraceae       | SC            |           | Bakersfield        |
| <u>Clarkia mosquinii</u> E. Small<br>ssp. <u>mosquini</u>                                    | Mosquin's clarkia            | Onagraceae       | SC            |           | Ukiah              |
| <u>Clarkia mosquinii</u> E. Small<br>ssp. <u>xerophila</u> E. Small                          | Enterprise clarkia           | Onagraceae       | SC            | 2/        | Ukiah              |
| <u>Clarkia rostrata</u> W.S. Davis   | Beaked clarkia               | Onagraceae       | SC            |           | Bakersfield        |
| <u>Collomia rawsoniana</u> Greene  | Flaming trumpet              | Polemoniaceae    | SC            |           | Bakersfield        |
| <u>Colubrina californica</u> Jtn.  | Ias Animas colubrina         | Rhamnaceae       | SC            | 2/        | California Desert  |
| <u>Cordylanthus tenuis</u> Gray<br>ssp. <u>pallidens</u> (Penn.) Chuang & Heckard            | Pallid bird's beak           | Scrophulariaceae | SC            |           | Susanville         |
| <u>Coreopsis hamiltonii</u> (Elmer) H.K. Sharsm.   | Mt. Hamilton coreopsis       | Asteraceae       | SC            |           | Bakersfield        |
| <u>Coryphantha vivipara</u> (Nutt.) Britt. & Rose<br>var. <u>alversonii</u> (Coulter) Benson | Alverson's pincushion cactus | Cactaceae        | SC            |           | California Desert  |

| <u>Scientific Name</u>   | <u>Common Name</u>                          | <u>Family</u>    | <u>Status</u> | <u>District(s)</u>                |
|--|---|------------------|---------------|-----------------------------------|
| <u>Coryphantha vivipara</u> (Mutl.) Britt. & Rose<br>var. <u>rosea</u> (Cleoky) Benson   | Viviparous foxtail cactus                   | Cactaceae        | SC 2/         | California Desert                 |
| <u>Cryptantha crinita</u> Greene   | Silky cryptantha                            | Boraginaceae     | SC            | Ukiah                             |
| <u>Cryptantha tumulosa</u> (Pays.) Pays.   | Mohave cryptantha                           | Boraginaceae     | SC 2/         | California Desert                 |
| <u>Cypressus stephensonii</u> C.B. Wolf  | Guyamaca cypress                            | Cupressaceae     | SC            | California Desert                 |
| <u>Cypripedium californicum</u> Gray   | California lady's slipper                   | Orchidaceae      | SC 2/         | Ukiah                             |
| <u>Cypripedium montanum</u> Dougl.   | Mountain lady's slipper                     | Orchidaceae      | SC 2/         | Ukiah                             |
| <u>Darlingtonia californica</u> Torr.  | California pitcher plant                    | Sarraceniaceae   | SC 2/         | Ukiah; Susanville                 |
| <u>Dedeckera eurekensis</u> Reveal & Howell  | July gold                                   | Polygonaceae     | SC            | Bakersfield;<br>California Desert |
| <u>Delphinium hesperium</u> Gray<br>ssp. <u>cuyamacae</u> (Ahrns.) Lewis & Epling        | Guyamaca larkspur                           | Ranunculaceae    | SC            | California Desert                 |
| <u>Delphinium inopinum</u> (Jeps.) Lewis & Epling  | Kern River Canyon larkspur                  | Ranunculaceae    | SC            | Bakersfield                       |
| <u>Dichanthelium lanuginosum</u> (Ell.) Gould<br>var. <u>thermale</u> (Bol.) Spellenburg | Hot spring panic grass;<br>Geyser's panicum | Poaceae          | SC            | Ukiah                             |
| <u>Dichelostemma lacuna-vernalis</u> Lenz  | Vernal pool brodiaea                        | Liliaceae        | SC            | Bakersfield                       |
| <u>Diplacus aridus</u> Abrams  | Low bush monkey flower                      | Scrophulariaceae | SC 2/         | California Desert                 |
| <u>Ditaxis californica</u> (Bdg.) Pax & K. Hoffm.  | California ditaxis                          | Euphorbiaceae    | SC            | California Desert                 |
| <u>Draba douglasii</u> Gray<br>var. <u>crockeri</u> (Lemmon) C.L. Hitchcock              | Crocker's draba                             | Brassicaceae     | SC 2/         | Susanville                        |
| <u>Draba stenoloba</u> Ledeb.<br>var. <u>ramosa</u> C.L. Hitchcock                       | Branched draba                              | Brassicaceae     | SC 2/         | Susanville                        |

| <u>Scientific Name</u>  | <u>Common Name</u>        | <u>Family</u>   | <u>Status</u> 1/ | <u>District(s)</u> |
|---|---------------------------|-----------------|------------------|--------------------|
| <u>Draba quadricostata</u> Rollins  | Bodie Hills draba         | Brassicaceae    | SC 2/            | Bakersfield        |
| <u>Dudleya bettinae</u> Hoover  | Betty's live-forever      | Crassulaceae    | SC               | Bakersfield        |
| <u>Dudleya saxosa</u> (Jones) Britt. & Rose<br>ssp. <u>saxosa</u>                     | Panamint live-forever     | Crassulaceae    | SC 2/            | California Desert  |
| <u>Dudleya variegata</u> (Wats.) Moran  | Variegated dudleya        | Crassulaceae    | SC               | California Desert  |
| <u>Echinocereus engelmannii</u> (Parry) Ruempler<br>var. <u>howei</u> Benson          | Howe's hedgehog cactus    | Cactaceae       | SC               | California Desert  |
| <u>Echinocereus engelmannii</u> (Parry) Ruempler<br>var. <u>munzii</u> Pierce & Fosb. | Munz's hedgehog cactus    | Cactaceae       | SC               | California Desert  |
| <u>Emmenanthe rosea</u> Constance   | Pink whispering bells     | Hydrophyllaceae | SC               | Bakersfield        |
| <u>Enceliopsis covillei</u> (Nels.) Blake   | Panamint daisy            | Asteraceae      | SC               | California Desert  |
| <u>Epilobium nivium</u>   | Snow Mountain willow herb | Onagraceae      | SC               | Ukiah              |
| <u>Eriastrum brandegeae</u> Mason   | Brandegee's eriastrum     | Polemoniaceae   | SC               | Ukiah              |
| <u>Eriastrum tracyi</u> Mason   | Tracy's eriastrum         | Polemoniaceae   | SC               | Ukiah              |
| <u>Erigeron flexuosus</u> Cronq.  | Trinity Alps daisy        | Asteraceae      | SC               | Ukiah              |
| <u>Erigeron parishii</u> Gray   | Parish's daisy            | Asteraceae      | SC               | California Desert  |
| <u>Eriogonum apicum</u> J.T. Howell<br>var. <u>apicum</u>                             | Ione buckwheat            | Polygonaceae    | SC               | Bakersfield        |
| <u>Eriogonum apicum</u> J.T. Howell<br>var. <u>prostratum</u> Hyatt                   | Irish Hill buckwheat      | Polygonaceae    | SC               | Bakersfield        |
| <u>Eriogonum bifurcatum</u> Reveal  | Forked buckwheat          | Polygonaceae    | SC               | California Desert  |
| <u>Eriogonum breedlovei</u> (J.T. Howell) Reveal<br>var. <u>breedlovei</u>            | Piute buckwheat           | Polygonaceae    | SC               | Bakersfield        |

| <u>Scientific Name</u>  | <u>Common Name</u>         | <u>Family</u> | <u>Status</u> <sup>1/</sup> | <u>District(s)</u> |
|---|----------------------------|---------------|-----------------------------|--------------------|
| <u>Eriogonum eremicola</u> J.T. Howell & Reveal   | Wild Rose Canyon buckwheat | Polygonaceae  | SC                          | California Desert  |
| <u>Eriogonum ericifolium</u> T. & G.<br>var. <u>thornei</u> Reveal & Hendrickson            | Thorne's buckwheat         | Polygonaceae  | SC                          | California Desert  |
| <u>Eriogonum gilmanii</u> S. Stokes   | Gilman's buckwheat         | Polygonaceae  | SC <sup>2/</sup>            | California Desert  |
| <u>Eriogonum kelloggii</u> Gray   | Red Mountain buckwheat     | Polygonaceae  | SC                          | Ukiah              |
| <u>Eriogonum kennedyi</u> Porter ex Wats.<br>var. <u>pinicola</u> Reveal                    | Cache Peak buckwheat       | Polygonaceae  | SC                          | California Desert  |
| <u>Eriogonum nervulosum</u> (S. Stokes) Reveal  | Snow Mountain buckwheat    | Polygonaceae  | SC                          | Ukiah              |
| <u>Eriogonum nudum</u> Dougl. ex Benth.<br>var. <u>marinum</u> Reveal                       | Mouse buckwheat            | Polygonaceae  | SC                          | Bakersfield        |
| <u>Eriogonum ovalifolium</u> Nutt.<br>var. <u>vineum</u> (Small) Nels.                      | Cushenberry buckwheat      | Polygonaceae  | SC                          | California Desert  |
| <u>Eriogonum prociduum</u> Reveal   | Frostrate buckwheat        | Polygonaceae  | SC                          | Susanville         |
| <u>Eriogonum umbellatum</u> Torrey<br>var. <u>torreyanum</u> (Gray) Jones                   | Donner Pass buckwheat      | Polygonaceae  | SC <sup>2/</sup>            | Susanville         |
| <u>Eriogonum vestitum</u> J.T. Howell   | Idria buckwheat            | Polygonaceae  | SC <sup>2/</sup>            | Bakersfield        |
| <u>Eriophyllum mohavense</u> (Jtn.) Jeps.   | Barstow wooly-sunflower    | Asteraceae    | SC                          | California Desert  |
| <u>Eryngium aristulatum</u> Jeps.<br>var. <u>parishi</u> (Coulter & Rose) Math. &<br>Const. | San Diego button-celery    | Apiaceae      | SC                          | California Desert  |
| <u>Eryngium mathiasiae</u> Sheikh   | Mathias' coyote-thistle    | Apiaceae      | SC                          | Susanville         |
| <u>Eryngium pinnatifectum</u> Jeps.   | Tuolumne coyote-thistle    | Apiaceae      | SC                          | Bakersfield        |
| <u>Eryngium racemosum</u> Jeps.   | Delta coyote-thistle       | Apiaceae      | SC                          | Bakersfield        |

| <u>Scientific Name</u>   | <u>Common Name</u>               | <u>Family</u>    | <u>Status</u> | <u>District(s)</u> |
|--|----------------------------------|------------------|---------------|--------------------|
| <u>Erysimum menziesii</u> (Hook.) Wettst.                                | Menzies' wallflower              | Brassicaceae     | SC            | Ukiah              |
| <u>Erythronium tuolumnense</u> Applegate                                 | Tuolumne fawn-lily               | Liliaceae        | SC            | Bakersfield        |
| <u>Eschscholzia procera</u> Greene                                       | Kernville poppy                  | Papaveraceae     | SC            | Bakersfield        |
| <u>Eschscholzia rhombipetala</u> Greene                                  | Diamond-petaled California poppy | Papaveraceae     | SC            | Bakersfield        |
| <u>Euphorbia hooveri</u> Wheeler   | Hoover's spurge                  | Euphorbiaceae    | SC            | Bakersfield; Ukiah |
| <u>Euphorbia platysperma</u> Engelm.                                     | Flat-seeded spurge               | Euphorbiaceae    | SC            | California Desert  |
| <u>Ferocactus viridescens</u> (T. & G.) Britton & Rose                   | San Diego barrel cactus          | Cactaceae        | SC            | California Desert  |
| <u>Forsellea pungens</u> (Bdg.) Heller<br>var. <u>glabra</u> Ensign      |                                  | Grossosomataceae | SC 2/         | California Desert  |
| <u>Fremontodendron mexicanum</u> A. Davids.                              | Mexican fremontia                | Sterculiaceae    | SC            | California Desert  |
| <u>Fritillaria agrestis</u> Greene                                       | Stink bells                      | Liliaceae        | SC 3/         | Bakersfield        |
| <u>Fritillaria brandegeei</u> Eastw.                                     | Greenhorn fritillary             | Liliaceae        | SC 2/         | Bakersfield        |
| <u>Fritillaria eastwoodiae</u> Macfarlane                                | Butte County fritillary          | Liliaceae        | SC 2/         | Ukiah              |
| <u>Fritillaria falcata</u> (Jeps.) D.E. Beetle                           | Tulip fritillary                 | Liliaceae        | SC            | Bakersfield        |
| <u>Fritillaria pluriflora</u> Torr.                                      | Adobe-lily                       | Liliaceae        | SC            | Bakersfield        |
| <u>Fritillaria roderickii</u> Knight                                     | Roderick's fritillary            | Liliaceae        | SC            | Bakersfield, Ukiah |
| <u>Fritillaria striata</u> Eastw.  | Greenhorn adobe-lily             | Liliaceae        | SC            | Ukiah              |
| <u>Fritillaria viridea</u>   | San Benito fritillary            | Liliaceae        | SC            | Bakersfield        |
| <u>Gaultheria angustifolium</u> Nutt.<br>ssp. <u>borregense</u> Dempster | Borrego bedstraw                 | Rubiaceae        | SC            | California Desert  |

| <u>Scientific Name</u>   | <u>Common Name</u>        | <u>Family</u> | <u>Status</u> | <u>1/</u> | <u>District(s)</u> |
|--|---------------------------|---------------|---------------|-----------|--------------------|
| <u><i>Galium californicum</i> H. &amp; A.</u><br><u>ssp. <i>sierrae</i> Dempster &amp; Stebbins</u>                        | El Dorado bedstraw        | Rubiaceae     | SC            |           | Bakersfield        |
| <u><i>Galium globrescens</i> Ehrend.</u> Dempster & Ehrend.<br><u>ssp. <i>modocense</i> Dempster &amp; Ehrend.</u>         | Nodoc bedstraw            | Rubiaceae     | SC            |           | Susanville         |
| <u><i>Galium hardhamiae</i> Dempster</u>   | Hardham's bedstraw        | Rubiaceae     | SC            |           | Bakersfield        |
| <u><i>Galium hilendiae</i> Dempster &amp; Ehrend.</u><br><u>ssp. <i>kingstonense</i> (Dempster) Dempster &amp; Ehrend.</u> | Kingston bedstraw         | Rubiaceae     | SC            |           | California Desert  |
| <u><i>Galium serpenticum</i> Dempster</u><br><u>ssp. <i>scotticum</i> Dempster &amp; Ehrend.</u>                           | Scott Mountain bedstraw   | Rubiaceae     | SC            | 2/        | Ukiah              |
| <u><i>Galium serpenticum</i> Dempster</u><br><u>ssp. <i>warnerense</i> Dempster &amp; Ehrend.</u>                          | Warner Mountains bedstraw | Rubiaceae     | SC            |           | Susanville         |
| <u><i>Grindelia fraxino-pratensis</i> Reveal &amp; Beatley</u>   | Ash Meadows gum plant     | Asteraceae    | SC            |           | California Desert  |
| <u><i>Grindelia hallii</i> Steyermark</u>  | San Diego gum plant       | Asteraceae    | SC            | 2/        | California Desert  |
| <u><i>Hackelia ophiobia</i> Carr</u>   | Three Forks stickseed     | Boraginaceae  | SC            |           | Susanville         |
| <u><i>Haplopappus ophitidis</i> (J.T. Howell) Keck</u>   | Serpentine macronema      | Asteraceae    | SC            | 2/        | Ukiah              |
| <u><i>Helianthemum suffrutescens</i> Schreiber</u>   | Amador rush-rose          | Cistaceae     | SC            |           | Bakersfield        |
| <u><i>Helianthus exilis</i> Gray</u>   | Serpentine sunflower      | Asteraceae    | SC            |           | Ukiah              |
| <u><i>Helianthus niveus</i> (Benth.) Bdg.</u><br><u>ssp. <i>tephrodes</i> (Gray) Heiser</u>                                | Desert sunflower          | Asteraceae    | SC            |           | California Desert  |
| <u><i>Hemizonia arida</i> Keck</u>   | Red Rock tarweed          | Asteraceae    | SC            |           | California Desert  |
| <u><i>Hemizonia conjugens</i> Keck</u>   | Otay tarweed              | Asteraceae    | SC            |           | California Desert  |
| <u><i>Hemizonia floribunda</i> Gray</u>  | Tecate tarweed            | Asteraceae    | SC            |           | California Desert  |

| <u>Scientific Name</u>  | <u>Common Name</u>        | <u>Family</u> | <u>Status</u> 1/ | <u>District(s)</u> |
|---|---------------------------|---------------|------------------|--------------------|
| <u>Hesperolinon adenophyllum</u> (Gray) Small                               | Glandular dwarf flax      | Linaceae      | SC 2/            | Ukiah              |
| <u>Hesperolinon bicarpellatum</u> (H.K. Sharsm.) H.K. Sharsm.               | Two carpel dwarf flax     | Linaceae      | SC               | Ukiah              |
| <u>Hesperolinon breweri</u> (Gray) Small                                    | Brewer's dwarf flax       | Linaceae      | SC               | Ukiah              |
| <u>Hesperolinon didymocarpum</u> H.K. Sharsm.                               | Lake County dwarf flax    | Linaceae      | SC               | Ukiah              |
| <u>Hesperolinon drymarioides</u> (Curtiss) Small                            | Drymaria dwarf flax       | Linaceae      | SC 2/            | Ukiah              |
| <u>Heuchera brevistaminea</u> Wiggins                                       | Mount Laguna alum-root    | Saxifragaceae | SC               | California Desert  |
| <u>Hibiscus californicus</u> Kell.  | California hibiscus       | Malvaceae     | SC 2/            | Ukiah              |
| <u>Hulsea californica</u> T. & G. ex Gray                                   | San Diego hulsea          | Asteraceae    | SC 2/            | California Desert  |
| <u>Ivesia paniculata</u> T.W. Nelson & J.P. Nelson                          | Ash Creek ivesia          | Rosaceae      | SC               | Susanville         |
| <u>Ivesia pickeringii</u> Torr. ex Gray                                     | Pickering's ivesia        | Rosaceae      | SC 2/            | Ukiah              |
| <u>Juncus leiospermus</u> F.J. Herm.  | Red Bluff rush            | Juncaceae     | SC               | Ukiah              |
| <u>Lasthenia burkei</u> (Greene) Greene                                     | Burke's goldfields        | Asteraceae    | SC               | Ukiah              |
| <u>Lasthenia leptalea</u> (Gray) Ornduff                                    | Salinas Valley goldfields | Asteraceae    | SC               | Bakersfield        |
| <u>Layia discoidea</u> (Keck) Keck  | Rayless tidytips          | Asteraceae    | SC               | Bakersfield        |
| <u>Layia jonesii</u> Gray   | Jones' layia              | Asteraceae    | SC               | Bakersfield        |
| <u>Layia leucopappa</u> Keck  | Comanche Point layia      | Asteraceae    | SC               | Bakersfield        |
| <u>Lessingia glandulifera</u> Gray<br>var. <u>tomentosa</u> (Greene) Ferris | Warner Springs lessingia  | Asteraceae    | SC               | California Desert  |
| <u>Lewisia cantelowii</u> J.T. Howell                                       | Cantelow's lewisia        | Portulacaceae | SC               | Ukiah; Susanville  |
| <u>Lewisia congdonii</u> (Rydb.) J.T. Howell                                | Congdon's lewisia         | Portulacaceae | SC 2/            | Bakersfield        |

| <u>Scientific Name</u>   | <u>Common Name</u>       | <u>Family</u>   | <u>Status</u> | <u>I/</u> | <u>District(s)</u> |
|--|--------------------------|-----------------|---------------|-----------|--------------------|
| <u>Lewisia cotyledon</u> (Wats.) Rob.<br>var. <u>fimbriata</u> Hohn., ined.  | Fringed lewisia          | Portulacaceae   | SC            |           | Ukiah              |
| <u>Lewisia cotyledon</u> (Wats.) Rob.<br>var. <u>heckneri</u> (Mort.) Munz   | Heckner's lewisia        | Portulacaceae   | SC            |           | Ukiah              |
| <u>Lewisia stebbinsii</u> Gankin & Hildebrand                                | Stebbins' lewisia        | Portulacaceae   | SC            |           | Ukiah              |
| <u>Lilium fairchildii</u> Jones  | Fairchild's lily         | Liliaceae       | SC            |           | California Desert  |
| <u>Lilium vollmeri</u> Eastw.  | Vollmer's lily           | Liliaceae       | SC            | 2/        | Ukiah              |
| <u>Lilium washingtonianum</u> Kell.<br>var. <u>minus</u> Purdy               | Shasta lily              | Liliaceae       | SC            | 2/        | Susanville         |
| <u>Lilium wigginsii</u> Beane & Vollmer                                      | Wiggins's lily           | Liliaceae       | SC            | 2/        | Ukiah              |
| <u>Limnanthes bakeri</u> Howell  | Baker's meadow foam      | Limnanthaceae   | SC            |           | Ukiah              |
| <u>Limnanthes floccosa</u> Howell<br>ssp. <u>hellingeriana</u> (Peck) Arroyo | Bellinger's meadow foam  | Limnanthaceae   | SC            |           | Ukiah              |
| <u>Limnanthes floccosa</u> Howell<br>ssp. <u>californica</u> Arroyo          | Butte County meadow foam | Limnanthaceae   | SC            |           | Ukiah              |
| <u>Limnanthes gracilis</u> Howell<br>var. <u>parishi</u> (Jeps.) C. Mason    | Parish's meadow foam     | Limnanthaceae   | SC            |           | California Desert  |
| <u>Loeflingia squarrosa</u> Nutt.<br>ssp. <u>artemisiarum</u>                | Sage-like loeflingia     | Caryophyllaceae | SC            |           | Bakersfield        |
| <u>Lomatium congdonii</u> Coulter & Rose                                     | Congdon's lomatium       | Apiaceae        | SC            |           | Bakersfield        |
| <u>Lomatium peckianum</u> Math. & Const.                                     | Peck's lomatium          | Apiaceae        | SC            |           | Ukiah              |
| <u>Lupinus cervinus</u> Kell.  | Santa Lucia lupine       | Fabaceae        | SC            | 2/        | Bakersfield        |
| <u>Lupinus daleaiae</u> Eastw.   | Quincy lupine            | Fabaceae        | SC            |           | Susanville         |

| <u>Scientific Name</u>   | <u>Common Name</u>          | <u>Family</u>    | <u>Status 1/</u> | <u>District(s)</u> |
|--|-----------------------------|------------------|------------------|--------------------|
| <u>Lupinus deflexus</u> Congdon  | Mariposa lupine             | Fabaceae         | SC               | Bakersfield        |
| <u>Lupinus duranii</u> Eastw.  | Mono Lake lupine            | Fabaceae         | SC 2/            | Bakersfield        |
| <u>Lupinus excubitus</u> Jones<br>var. <u>medium</u> (Jeps.) Munz                              | Mountain Spring bush lupine | Fabaceae         | SC               | California Desert  |
| <u>Lupinus ludovicianus</u> Greene   | San Luis lupine             | Fabaceae         | SC               | Bakersfield        |
| <u>Lupinus milo-bakeri</u> C.P. Smith  | Milo Baker's lupine         | Fabaceae         | SC               | Ukiah              |
| <u>Lupinus spectabilis</u> Hoover  | Shaggy hair lupine          | Fabaceae         | SC               | Bakersfield        |
| <u>Machaeranthera lagunensis</u> Keck  | Laguna Mountains aster      | Asteraceae       | SC               | California Desert  |
| <u>Madia stebbinsii</u> T.W. Nelson & J.P. Nelson  | Stebbins' madia             | Asteraceae       | SC 2/            | Ukiah              |
| <u>Mahonia nervosa</u> (Pursh) Nutt.<br>var. <u>mendocinensis</u> (Roof) Roof                  | Mendocino barberry          | Berberidaceae    | SC               | Ukiah              |
| <u>Mahonia nevadensis</u> (Gray) Fedde   | Nevin'a barberry            | Berberidaceae    | SC               | California Desert  |
| <u>Malacothamnus palmeri</u> (Wats.) Greene<br>var. <u>involucratus</u> (Rob.) Kearn.          | Carmel Valley bush-mallow   | Malvaceae        | SC               | Bakersfield        |
| <u>Malacothrix saxatilis</u> (Nutt.) T. & G.<br>var. <u>arachnoidea</u> (McGregor) F. Williams | Carmel Valley malacothrix   | Asteraceae       | SC               | Bakersfield        |
| <u>Marina orcuttii</u> (Wats.) Barneby<br>var. <u>oreocarpa</u>                                | California marina           | Fabaceae         | SC               | California Desert  |
| <u>Mimulus pictus</u> (Carr.) Gray   | Calico monkey flower        | Scrophulariaceae | SC               | Bakersfield        |
| <u>Mimulus pygmaeus</u> Grant  | Pygmy monkey flower         | Scrophulariaceae | SC               | Susanville         |
| <u>Mimulus rupicola</u> Cov. & Grant   | Death Valley monkey flower  | Scrophulariaceae | SC               | California Desert  |

| <u>Scientific Name</u>  | <u>Common Name</u>         | <u>Family</u>   | <u>Status</u> 1/ | <u>District(s)</u> |
|---|----------------------------|-----------------|------------------|--------------------|
| <u><i>Minuartia decumbens</i></u> T.W. Nelson & J.P. Nelson   | Lassics sandwort           | Caryophyllaceae | SC               | Ukiah              |
| <u><i>Minuartia rosei</i></u> (Maguire & Barneby) McNeill   | Peanut sandwort            | Caryophyllaceae | SC               | Ukiah              |
| <u><i>Monardella benitensis</i></u> Hardham   | San Benito monardella      | Lamiaceae       | SC 2/            | Bakersfield        |
| <u><i>Monardella hypoleuca</i></u> Gray<br>ssp. <u><i>Ianata</i></u> (Abrams) Munz                  | Felt-leaved rockplant      | Lamiaceae       | SC               | California Desert  |
| <u><i>Monardella leucocephala</i></u> Gray  | Merced monardella          | Lamiaceae       | SC               | Bakersfield        |
| <u><i>Monardella linooides</i></u> Gray<br>ssp. <u><i>oblonga</i></u> (Greene) Abrams               | Flax-like monardella       | Lamiaceae       | SC               | Bakersfield        |
| <u><i>Monardella robisonii</i></u> Epling   | Robison's monardella       | Lamiaceae       | SC               | California Desert  |
| <u><i>Monardella stebbinsii</i></u> Hardham   | Stebbins' monardella       | Lamiaceae       | SC               | Ukiah              |
| <u><i>Nasturtium gambelii</i></u> O.E. Schulz   | Gambel's watercress        | Brassicaceae    | SC               | California Desert  |
| <u><i>Navarretia pauciflora</i></u> Mason   | Few-flowered navarretia    | Polemoniaceae   | SC               | Ukiah              |
| <u><i>Navarretia prolifera</i></u> Greene<br>ssp. <u><i>lutea</i></u> (Brand) Mason                 | Yellow bur navarretia      | Polemoniaceae   | SC               | Bakersfield        |
| <u><i>Navarretia setiloba</i></u> Cov.  | Piute Mountains navarretia | Polemoniaceae   | SC               | Bakersfield        |
| <u><i>Nitrophila molaveensis</i></u> Munz & Roos  | Amargosa nitrophila        | Chenopodiaceae  | SC               | California Desert  |
| <u><i>Opuntia basilaris</i></u> Engelm. & Bigel.<br>var. <u><i>brachyclada</i></u> (Griffiths) Munz | Short-joint beaver tail    | Cactaceae       | SC               | California Desert  |
| <u><i>Opuntia bigelovii</i></u> Engelm.<br>var. <u><i>hoffmannii</i></u> (C.B. Wolf) Fosberg        | Mason Valley cholla        | Cactaceae       | SC               | California Desert  |
| <u><i>Opuntia munizii</i></u> C.B. Wolf   | Munz' cholla               | Cactaceae       | SC               | California Desert  |
| <u><i>Opuntia phaeacantha</i></u> Engelm.<br>var. <u><i>mojavensis</i></u> Engelm.                  | Mojave opuntia             | Cactaceae       | SC 2/            | California Desert  |

| <u>Scientific Name</u>   | <u>Common Name</u>           | <u>Family</u>     | <u>Status</u> 1/ | <u>District(s)</u> |
|--|------------------------------|-------------------|------------------|--------------------|
| <u><i>Opuntia wigginsii</i></u> L. Benson  | Wiggins' cholla              | Cactaceae         | SC               | California Desert  |
| <u><i>Orcuttia greenei</i></u> Vasey   | Greene's orcutt grass        | Poaceae           | SC               | Bakersfield; Ukiah |
| <u><i>Orcuttia pilosa</i></u> Hoover   | Hairy orcutt grass           | Poaceae           | SC               | Bakersfield; Ukiah |
| <u><i>Orcuttia tenuis</i></u> Hitchcock  | Slender orcutt grass         | Poaceae           | SC               | Ukiah              |
| <u><i>Orthocarpus pachystachyus</i></u> Gray   | Shasta owl's-clover          | Schrophulariaceae | SC               | Ukiah              |
| <u><i>Parvisedum leiocarpum</i></u> (H.K. Sharsm.) Clausen                                   | Lake County stonecrop        | Crassulaceae      | SC               | Ukiah              |
| <u><i>Penstemon calcareus</i></u> Bdg.   | Limestone beardtongue        | Schrophulariaceae | SC               | California Desert  |
| <u><i>Penstemon californicus</i></u> (Muñz & Johnston) Keck                                  | California beardtongue       | Schrophulariaceae | SC 2/            | California Desert  |
| <u><i>Penstemon filiformis</i></u> (Keck) Keck   | Thread-leaved beardtongue    | Schrophulariaceae | SC 2/            | Ukiah              |
| <u><i>Penstemon personatus</i></u> Keck  | Closed-throated beardtongue  | Schrophulariaceae | SC               | Ukiah; Susanville  |
| <u><i>Penstemon stephensii</i></u> Bdg.  | Stephen's beardtongue        | Schrophulariaceae | SC               | California Desert  |
| <u><i>Perideridia bacigalupii</i></u> Chuang & Const.  | Mother Lode yampah           | Apiaceae          | SC 2/            | Bakersfield        |
| <u><i>Perideridia gairdneri</i></u> (H. & A.) Math.<br>spp. <u><i>gairdneri</i></u>          | Gairdner's yampah            | Apiaceae          | SC               | Ukiah              |
| <u><i>Perityle inyoensis</i></u> (Ferriss) Powell  | Inyo laphamia                | Asteraceae        | SC               | California Desert  |
| <u><i>Petalonyx Thurberi</i></u> Gray<br>spp. <u><i>gilmanii</i></u> (Monz) Davis & Thompson | Death Valley sandpaper plant | Loasaceae         | SC               | California Desert  |
| <u><i>Phacelia amabilis</i></u> Const.   | Saline Valley phacelia       | Hydrophyllaceae   | SC               | California Desert  |
| <u><i>Phacelia nelsonii</i></u> Macbr.   | Aven Nelson's phacelia       | Hydrophyllaceae   | SC 2/            | California Desert  |
| <u><i>Phacelia cookei</i></u> Const. & Heckard   | Cooke's phacelia             | Hydrophyllaceae   | SC               | Susanville         |
| <u><i>Phacelia dalesiana</i></u> J.T. Howell   | Scott Mountain phacelia      | Hydrophyllaceae   | SC               | Ukiah              |

| <u>Scientific Name</u>  | <u>Common Name</u>            | <u>Family</u>   | <u>Status</u> 1/ | <u>District(s)</u>             |
|---|-------------------------------|-----------------|------------------|--------------------------------|
| <u>Phacelia greenei</u> J.T. Howell   | Scott Valley phacelia         | Hydrophyllaceae | SC               | Ukiah                          |
| <u>Phacelia monoensis</u> Nels.   | Mono County phacelia          | Hydrophyllaceae | SC               | California Desert              |
| <u>Phacelia novemmillensis</u> Munz   | Nine Mile Canyon phacelia     | Hydrophyllaceae | SC               | Bakersfield; California Desert |
| <u>Phacelia phacelioides</u> (Benth.) Brand                                     | Mount Diablo phacelia         | Hydrophyllaceae | SC               | California Desert              |
| <u>Phlox hirsuta</u> E. Nels.   | Treka phlox                   | Polemoniaceae   | SC               | Ukiah                          |
| <u>Plagiobothrys scriptus</u> (Greene) Jtn.                                     | Scribe allocarya              | Boraginaceae    | SC               | Bakersfield; Ukiah             |
| <u>Pleurropogon hooverianus</u> (L. Benson)<br>J.T. Howell                      | Hoover's semaphore grass      | Poaceae         | SC               | Ukiah                          |
| <u>Poa atropurpurea</u> Scribn.   | San Bernardino bluegrass      | Poaceae         | SC               | California Desert              |
| <u>Poa fibrata</u> Swallen  | Laasen County bluegrass       | Poaceae         | SC               | Susanville                     |
| <u>Pogogyne clareana</u> J.T. Howell  | Santa Lucia mint              | Lamiaceae       | SC               | Bakersfield                    |
| <u>Pogogyne douglasii</u> Benth.<br>ssp. <u>parviflora</u> (Benth.) J.T. Howell | Douglas' pogogyne             | Lamiaceae       | SC               | Ukiah                          |
| <u>Polygonum bidwelliae</u> Wats.   | Bidwell's knotweed            | Polygonaceae    | SC 2/            | Ukiah                          |
| <u>Potentilla patellifera</u> J.T. Howell                                       | Kingston Mountains cinquefoil | Rosaceae        | SC               | California Desert              |
| <u>Pseudobahia bahiaeifolia</u> (Benth.) Rydb.                                  | Hartweg's pseudobahia         | Asteraceae      | SC               | Bakersfield                    |
| <u>Pseudobahia peirsonii</u> Munz   | Tulare pseudobahia            | Asteraceae      | SC               | Bakersfield                    |
| <u>Raillardella mairii</u> Gray   | Muir's raillardella           | Asteraceae      | SC 2/            | Bakersfield                    |
| <u>Ribes canthariforme</u> Wiggins  | Moreno currant                | Saxifragaceae   | SC               | California Desert              |

| <u>Scientific Name</u>   | <u>Common Name</u>          | <u>Family</u>    | <u>Status 1/</u> | <u>District(s)</u>             |
|--|-----------------------------|------------------|------------------|--------------------------------|
| <u>Rorippa columbiae</u> Suskd. ex J.T. Howell                                   | Columbia yellow cress       | Brassicaceae     | SC 2/            | Susanville                     |
| <u>Salvia gregiae</u> Bdg.   | Orocopia sage               | Lamiaceae        | SC               | California Desert              |
| <u>Sanicula hoffmannii</u> (Muñz) Shan & Const.                                  | Hoffmann's sanicle          | Apiaceae         | SC               | Bakersfield                    |
| <u>Sanicula saxatilis</u> Greene   | Rock sanicle                | Apiaceae         | SC               | Bakersfield                    |
| <u>Sanicula tracyi</u> Shan & Const.   | Tracy's sanicle             | Apiaceae         | SC               | Ukiah                          |
| <u>Sclerocactus polyacanthus</u> (Engelm. & Bigelow) Britt.                      | Mohave fish-hook cactus     | Cactaceae        | SC               | Bakersfield; California Desert |
| <u>Scrophularia atrata</u> Penn.   | Black-flowered figwort      | Scrophulariaceae | SC               | Bakersfield                    |
| <u>Scutellaria holmgreniorum</u> Gronq.  | Ravendale skull-cap         | Lamiaceae        | SC               | Susanville                     |
| <u>Sedum albomarginatum</u> Clausen  | Feather River stonecrop     | Crassulaceae     | SC               | Ukiah                          |
| <u>Sedum laxum</u> (Britton) Berger<br>ssp. <u>eastwoodiae</u> (Britton) Clausen | Red Mountain stonecrop      | Crassulaceae     | SC               | Ukiah                          |
| <u>Sedum laxum</u> (Britton) Berger<br>ssp. <u>flavidum</u> Denton               | Pale yellow stonecrop       | Crassulaceae     | SC               | Ukiah                          |
| <u>Sedum obtusatum</u> Gray<br>ssp. <u>paradisum</u> Denton                      | Canyon Creek stonecrop      | Crassulaceae     | SC               | Ukiah                          |
| <u>Senecio Clevelandii</u> Greene<br>var. <u>heterophyllus</u> Hoover            | Chinese Camp butterweed     | Asteraceae       | SC 2/            | Bakersfield                    |
| <u>Senecio layneae</u> Greene  | Layne's butterweed          | Asteraceae       | SC               | Bakersfield                    |
| <u>Sidalcea covillei</u> Greene  | Owens Valley checker-mallow | Malvaceae        | SC               | Bakersfield                    |
| <u>Sidalcea hickmanii</u> Greene<br>ssp. <u>hickmanii</u>                        | Hickman's checker-mallow    | Malvaceae        | SC               | Bakersfield                    |

| <u>Scientific Name</u>   | <u>Common Name</u>            | <u>Family</u>   | <u>Status</u> | <u>1/</u> | <u>District(s)</u> |
|--|-------------------------------|-----------------|---------------|-----------|--------------------|
| <u>Sidalcea hickmanii</u> Greene<br>ssp. <u>parishii</u> (Rob.) C.L. Hitchc.           | Parish's checker-mallow       | Malvaceae       | SC            |           | Bakersfield        |
| <u>Sidalcea oregana</u> (Nutt.) Gray<br>ssp. <u>hydrophila</u> (Neller) C.L. Hitchcock | Water-loving checker-mallow   | Malvaceae       | SC            |           | Ukiah              |
| <u>Sidalcea robusta</u> Heller ex Roush  | Butte County checker-mallow   | Malvaceae       | SC            |           | Ukiah              |
| <u>Silene campanulata</u> Wats.<br>ssp. <u>campanulata</u>                             | Red Mountain campion          | Caryophyllaceae | SC            |           | Ukiah              |
| <u>Solanum tenuilobatum</u> Parish   | Narrow-leaved nightshade .    | Solanaceae      | SC            |           | California Desert  |
| <u>Stipa lemmonii</u> (Vasey) Scribn.<br>var. <u>pubescens</u> Crampton                | Crampton's spear grass        | Poaceae         | SC            |           | Ukiah              |
| <u>Streptanthus bernardinus</u> (Greene) Parish  | Laguna Mountains jewel-flower | Brassicaceae    | SC            |           | California Desert  |
| <u>Streptanthus brachiatus</u> F.W. Hoffmann   | Socrates Mine jewel-flower    | Brassicaceae    | SC            |           | Ukiah              |
| <u>Streptanthus callitius</u> Morrison   | Mount Hamilton jewel-flower   | Brassicaceae    | SC            |           | Bakersfield        |
| <u>Streptanthus cordatus</u> Nutt.<br>var. <u>piutensis</u> J.T. Howell                | Pinto Mountains jewel-flower  | Brassicaceae    | SC            |           | Bakersfield        |
| <u>Streptanthus glandulosus</u> Hook.<br>var. <u>hoffmannii</u> Kruckeberg             | Hoffmann's jewel-flower       | Brassicaceae    | SC            |           | Ukiah              |
| <u>Streptanthus morrisonii</u> F.W. Hoffmann   | Morrison's jewel-flower       | Brassicaceae    | SC            |           | Ukiah              |
| <u>Streptanthus oliganthus</u> Rollins   | Masonic Mountain jewel-flower | Brassicaceae    | SC            | 2/        | Bakersfield        |
| <u>Thelypodium brachycarpum</u> Torr.  | Short-podded thelypody        | Brassicaceae    | SC            | 2/        | Ukiah; Susanville  |
| <u>Tracyina rostrata</u> Blake   | Beaked tracyina               | Asteraceae      | SC            |           | Ukiah              |
| <u>Trifolium lemmontii</u> Wats.   | Lemmon's clover               | Fabaceae        | SC            | 2/        | Susanville         |

| <u>Scientific Name</u>  | <u>Common Name</u>             | <u>Family</u> | <u>Status</u> | <u>1/</u> | <u>District(s)</u> |
|---|--------------------------------|---------------|---------------|-----------|--------------------|
| <u><i>Trillium ovatum</i> Pursh<br/>ssp. <i>ettingeri</i> Munz &amp; Thorne</u> | Salmon Mountains wake robin    | Liliaceae     | SC            |           | Ukiah              |
| <u><i>Tropidocarpum capparideum</i> Greene</u>                                  | Caper-fruited tropidocarpum    | Brassicaceae  | SC            |           | Bakersfield        |
| <u><i>Vaccinium coccineum</i> Piper</u>   | Siskiyou Mountains huckleberry | Ericaceae     | SC            | 2/        | Susanville         |
| <u><i>Verbena californica</i> Moldenke</u>                                      | Red Hills vervain              | Verbenaceae   | SC            |           | Bakersfield        |
| <u><i>Wyethia reticulata</i> Greene</u>   | El Dorado mule ears            | Asteraceae    | SC            |           | Bakersfield        |
| <u><i>Xylorhiza occutii</i> (Vasey &amp; Rose)<br/>Greene</u>                   | Orcutt's woody aster           | Asteraceae    | SC            |           | California Desert  |

- 1/ Status: SC = sensitive candidate (taxon has been identified as a candidate for listing as endangered or threatened by the Fish and Wildlife Service in a Federal Register Notice of Review); SP = sensitive proposed (taxon has been officially proposed for listing as endangered or threatened by the Fish and Wildlife Service in a Federal Register Notice); SB = sensitive Bureau (taxon is neither a candidate nor a proposed species, but has been designated as sensitive by the California State Director).
- 2/ Taxa that are likely to be dropped from candidate status by the Fish and Wildlife Service (FWS) in an upcoming amendment to the December 15, 1980, Federal Register Notice of Review (based on information provided by the FWS Sacramento Endangered Species Office).
- 3/ Taxa that are likely to be added to the list of candidate plants in an upcoming amendment to the December 15, 1980, Notice of Review (based on information provided by the FWS Sacramento Endangered Species Office).

APPENDIX 3  
LIST OF INTERVIEWEES

CALIFORNIA STATE OFFICE

Ron Hofman, Associate State Director  
Dick Johnson, Chief, Division of Resources  
Judy Albeitz, Chief, Division of Operations  
Joan Russell, Chief, Branch of Lands and Minerals Operations  
John Willoughby, State Office Botanist  
Jerry Boggs, State Office Wildlife Biologist

WASHINGTON OFFICE

Bill Radtkey, Endangered Species Liaison Officer  
Roger Haskins, Mineral and Geothermal Resources

BAKERSFIELD DISTRICT OFFICE

Bill Lamb, Assistant District Manager  
Tim Salt, Chief of Resources  
Mike Ferguson, Wildlife Biologist  
Glenn Carpenter, Caliente Resource Area Manager

SUSANVILLE DISTRICT OFFICE

Ben Collins, Assistant District Manager  
Bob Sherve, Chief of Resources  
Steve Hawks, Wildlife Biologist  
Mark Morse, Eagle Lake Resource Area Manager  
Gary Yuncevich, Wildlife Biologist, Eagle Lake Resource Area  
Gary Schoolcraft, Botanist, Eagle Lake Resource Area

REDDING DISTRICT OFFICE (Now the Redding Resource Area Office)

Bob Bainbridge, Assistant District Manager  
Dave Miller, Chief of Resources  
Bill Lawhorn, Wildlife Biologist  
Dwain Davis, Four Rivers Resource Area Manager

UKIAH DISTRICT OFFICE

Monte Kirven, Wildlife Biologist  
Ed Katlas, Assistant District Manager  
Joel Verner, Chief of Resources  
Paul Yull, Wildlife Biologist  
Jack Lahr, Eureka Resource Area Manager

DESERT DISTRICT OFFICE

Bruce Ottenfeld, Assistant District Manager  
Wes Chambers, Chief of Resources  
Larry Foreman, Wildlife Biologist  
Alden Seivers, Barstow Resource Area Manager

APPENDIX 4  
ENDANGERED SPECIES REVIEW QUESTIONNAIRE

Interviewee \_\_\_\_\_ Date \_\_\_\_\_

1. The impact of the ESA on BLM Programs.

What have been the real impacts of ESA compliance on BLM Programs?

Are any of these impacts quantifiable in terms of dollar costs to the Bureau? Manpower costs? Lost commodity production to industry?

Are the costs of implementing the ESA justifiable in light of the Bureau's FLPMA mandate to recognize wildlife as a major or principal use of the public lands, particularly in relation to the protection of scarce resources provision in section 202c of FLPMA?

If you could amend the ESA in any way, would you? If so, what provisions would you change or add?

2. Past accomplishments.

Part of the Bureau's accomplishment for endangered species comes from the day-to-day office workload. How does implementation of the ESA change your day-to-day workload?

Are these changes significant?

Do you feel that you are accomplishing things for the benefit of endangered species on a daily basis? Monthly? Annually?

Section 7 of the ESA mandates that the Bureau implement positive programs to protect and enhance endangered species and their habitats. What such programs have been implemented in your district or pursuant to your office responsibilities to comply with this mandate during the past year?

During the past 5 years?

Do you feel a need to accomplish more for endangered species in your job? Or is your level of involvement sufficient to comply with the ESA?

3. Change in BLM Delegation of Section 7 Consultation Authority.

What difficulties are you or your colleagues having with the section 7 consultation process?

About how many consultations did you do from your office while the consultation authority was delegated to DMs? Is this more or less than before the delegation?

How effective has your office been in using informal processes to minimize the number of formal consultations you have conducted?

Has the FWS been prompt and responsive in dealing with BLM consultations, both informal and formal?

Do you feel that the BLM should conduct its own consultations in all "may affect" situations? How about in "may affect positively" situations?

4. Coordination with State and other Federal agencies.

What are the major wildlife coordination mechanisms with the FWS in your district other than section 7 consultation?

Is there too little, the right amount of, or too much coordination taking place with the FWS?

How effective is this coordination?

What are the major wildlife coordination mechanisms with the CDFG in your district? Local Offices? Headquarters in Sacramento?

How much coordination is there concerning State-listed rare and endangered species?

How do you keep them informed of our activities relating to federally listed species?

5. Training and Information Transfer Needs.

It has been about 18 months since the last training session on ESA implementation, specifically on section 7 consultation. Do you feel a need for additional training in this area?

If so, do you need it immediately or could you wait until the ESA is reauthorized? Until new regulations are issued by the FWS? A new manual supplement is developed?

Could this training need be satisfied by a new Manual Supplement without training per se?

Do you see a need for better information transfer concerning endangered species?

Would you support a State Office project to collect the available published and unpublished information on BLM-California endangered species and house it at a central location for loan to field offices as needed? It is difficult otherwise to maintain complete files, and this will minimize re-collection of individual papers and updating the files each time a new issue is faced. This will automatically be done by the California State Office wildlife staff.

6. State Office Assistance.

In what other ways could the State Office staff be of more assistance to you with endangered species matters?



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
MANUAL TRANSMITTAL SHEET

Release

Date

Subject

6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

1. Explanation of Material Transmitted: This release supplements BLM Manual Section 6840 Release 6-58, dated November 9, 1976, particularly for use in California. Included are changes necessary to incorporate all amendments to the Endangered Species Act through December 28, 1979 (P.L. 96-159), to expand the scope of the Manual Section to include plants, and to add paragraphs on documentation of Endangered Species Act compliance efforts, species listing and delisting, essential habitat delineation, recovery team participation, and recovery plan implementation. Guidance on methods to conserve California's State listed species is also included.
2. Reports Required: None.
3. Material Superseded: None.
4. Filing Instructions: After the attached sheets have been filed as directed, this transmittal sheet may be discarded.

DRAFT

REMOVE

None

INSERT

6840

(Total: 45 sheets)

State Director

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

Table of Contents

- .01 Purpose
- .02 Objectives and Background
- .03 Authority
- .04 Responsibility
- .05 Definitions
- .06 Policy
- .1 Federally Listed Threatened and Endangered Species
  - .11 Applicability of the Endangered Species Act (ESA)
  - .12 Types of Activities and Programs Affected by the ESA
    - A. Planning
    - B. Environmental Assessment
    - C. Lands and Realty Actions
    - D. Range Management
    - E. Wild Horse and Burro Management
    - F. Watershed Management
    - G. Wildlife Habitat Management
    - H. Forest Development and Management
    - I. Recreation Management
    - J. Fire Management
    - K. Energy and Minerals Development
    - L. Other Programs
  - .13 Compliance with the ESA
    - A. Section 7 Mandates
      - 1. Conservation Programs
        - a. Habitat Management Plans (HMPs)
        - b. Areas of Critical Environmental Concern (ACECs)
        - c. Emergency Situations
      - 2. Jeopardy
      - 3. Critical Habitat
        - a. Fish and Wildlife Service (FWS)/National Marine Fisheries Services (NMFS) Concept of Critical Habitat
        - b. Interpretation of FWS/NMFS Concept of Critical Habitat
        - c. Mitigation in Critical Habitat Zones
        - d. Formal Critical Habitat Recommendations
    - B. Methods of Program Compliance
      - 1. Conference with the FWS on Proposed Species
      - 2. Screening Using the BLM Inventories and Planning System
        - a. Inventories and Species Status Reports
        - b. Resource Management Planning Considerations
        - c. Planning System Screening of a Proposed Action
      - 3. Screening Using the Environmental and Biological Assessment Processes
        - a. Responsibilities of the BLM
        - b. Biological Assessments
      - 4. Formal Section 7 Consultation
        - a. Background
        - b. Section 7 Consultation Procedures

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

- (1) Initiation
  - (2) Scope and Form
    - (a) Aggregate Consultations
    - (b) Content of Requests for Consultation
  - (3) Informal Consultation
  - (4) Formal Consultation Procedures
- C. Documentation of ESA Compliance Efforts
- 1. Documentation of Informal Consultations
  - 2. Documentation That No Consultation is Needed
    - a. District Office Files
    - b. State Office Files
  - 3. Documentation in Environmental Assessment Records (EARs) and Environmental Impact Statements (EISs)
    - a. Negative Declarations and Documentation of Positive Effects
    - b. Insufficient Data
    - c. Filing of EARs or EISs Prior to Receipt of FWS Biological Opinion
    - d. Documentation of Adverse Effects on Listed Species or Their Critical Habitats
- .14 Assistance to the FWS
- A. Threatened and Endangered Species Listing and Delisting
    - 1. Background
    - 2. Listing and Delisting Proposals
  - B. Essential Habitat Delineation
    - 1. Essential Habitat Concept Justification
    - 2. Essential Habitat Delineation Procedures
  - C. Recovery Team Participation and Recovery Plan Implementation
    - 1. Recovery Teams
    - 2. Recovery Plans
- .2 State-listed Rare or Endangered Plants and Animals
- .21 Responsibilities
- A. BLM Officials
  - B. General Compliance
  - C. Cooperative Agreements
  - D. Relationship to Sikes Act Programs
  - E. Habitat Management Plans for State-listed Species
- .22 Screening Using BLM Inventories and Planning System
- A. Inventories and Species Status Reports
  - B. Planning System Considerations
  - C. Planning System Screening of a Particular Proposed Action
- .23 Screening Using the Environmental and Biological Assessment Processes
- A. Responsibilities of the BLM
  - B. Biological Assessments
- .24 Development of Management Guidelines
- A. Responsibilities of the BLM
  - B. Management Guidelines

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

Appendices

1. Endangered Species Act of 1973, as Amended
2. Interagency Cooperation Regulations
3. California Fish and Game Codes Pertaining to Rare and Endangered Species
4. Format for Endangered Animal Status Report
5. Format for Endangered Plant Status Report.

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

.01 Purpose. This section establishes policy and guidance for the conservation of plants and animals--and the habitats on which they depend--which are officially listed, according to Federal or California State laws, in categories that imply significant potential for extinction. It applies to all BLM activities and programs related to the public lands in California (hereinafter referred to as BLM-administered lands).

.02 Objectives and Background.

A. Objective. The overall objective is to conserve plants and animals, which are officially listed by Federal and/or the State of California as being in potential danger of extinction (i.e., rare, threatened, or endangered) in California. This shall be accomplished through special consideration in BLM land-use planning and decision-making processes and by meeting the following specific objectives.

1. Determining, in conjunction with the California Department of Fish and Game (CDFG) and other appropriate Federal agencies, the occurrence and distribution of listed plant and animal species on lands affected by BLM programs.

2. Describing essential habitats and Critical Habitats for plant and animal species identified on Federal lists, and prescribing management direction for those habitats in land management planning.

3. Determining the use, condition, and trend of essential habitats and Critical Habitats of federally listed plant and animal species in cooperation with appropriate State and other Federal agencies.

4. Reviewing BLM actions and consulting with FWS and/or CDFG to ensure that planned management activities conform with the intent of the Endangered Species Act and similar State laws.

B. Background.

1. On December 28, 1973, the Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531 et seq.) (see Appendix 1) became law and superseded similar acts passed in 1966 and 1969. It was declared in Section 2 of the ESA that all Federal departments and agencies shall utilize their authorities to conserve species (plants and animals) officially listed pursuant to Section 4 of the ESA. This national policy is repeated and expanded in Section 7 (16 U.S.C. 1536) of the ESA, which sets forth procedures to be used and requirements to be met by Federal departments and agencies in order to comply with the Act. Section 7 mandates have three objectives: conserving listed species; ensuring that the continued existence of listed species is not jeopardized; and ensuring that the Critical Habitats of listed species are not destroyed or adversely modified. These mandates are non-discretionary and are supported by civil and criminal penalties. Citizen lawsuits are authorized and could result in penalties being assessed against responsible officials of Federal agencies. It is also implied by Section 7 of the ESA that adequate cooperation, consultation,

nor in this copy.

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

and assistance will occur in the endangered species conservation effort. The current legal procedures for this cooperation and consultation can be found in 50 CFR 402 or in the Federal Register, Volume 43, pages 869-876, January 4, 1978 (see Appendix 2, Interagency Cooperation Regulations). However, amendments to the ESA in 1976, 1977, 1978, and 1979 have substantially changed Section 7 requirements. This Manual Section incorporates all ESA amendments through December 28, 1979. Generally, consultation requirements have been expanded and made more stringent by recent amendments.

not  
in this copy

2. Many State governments including California, have followed the Federal lead by enacting their own rare, unique, threatened, and/or endangered species legislation. These laws vary from state to state. Thus, in addition to the federally listed species that now occur on BLM-administered lands in California, numerous others have been listed by the California Fish and Game Commission. This Commission has also incorporated the pertinent laws into the California Fish and Game Code (Appendix 3). BLM/State cooperation in matters concerning official State-listed wildlife species is mandated by Title II, Section 202(c)(3), of the Sikes Act (16 U.S.C. 670h) as amended, which states, in part, that cooperative agreements under this Act must ". . . provide adequate protection for fish and wildlife officially classified as threatened or endangered pursuant to Section 4 of the Endangered Species Act of 1973 (16 U.S.C. 1533) or considered to be threatened, rare, or endangered by the State agency; . . ." (emphasis added). Although plants are not specifically mentioned in the Sikes Act, the ESA requires their consideration.

3. The principal goal of these laws is to minimize the need for rigorous protection of officially listed species by eliminating the potential for accelerating their extinction. The best conservation and management philosophy is to protect and enhance the habitats--and thus populations--of listed, extinction-prone species to the point that delisting them as rare, threatened, or endangered becomes appropriate. Permitting actions on BLM-administered lands which could lead to further endangerment of a species may severely limit subsequent management options and would be inconsistent with the intent of the ESA as set forth in the purposes stated in Section 2 of the Act.

4. These purposes include providing a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, providing a program for the conservation of such endangered species and threatened species, and taking such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth in Subsection 2(a) of the ESA. These international commitments include the migratory bird treaties with Canada, Mexico, Russia, and Japan; the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere; the International Convention for Northwest Atlantic Fisheries; and a catch-all category called "other international agreements." It becomes clear after studying the purposes of these treaties and conventions that Congress did not intend to limit considerations under the ESA just to species already listed under Section 4 of the Act. To the con-

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

trary, Congress explicitly included in the purpose--and, therefore, in the intent--of the ESA the protection and preservation in their natural habitat of representatives of all species and genera of native flora and fauna in sufficient numbers and over areas extensive enough to ensure that they do not become extinct--or even federally listed--through activities of any agency within the Federal Government. This implies a necessary Bureau commitment under the ESA to all rare or declining species of native flora and fauna, e.g., to state-listed species, even before they are listed pursuant to Section 4 of the ESA.

.03 Authority. Sources:

A. Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) as amended (see Appendix 1).

B. Sikes Act, Title II (16 U.S.C. 670 et seq.).

C. National Environmental Policy Act (42 U.S.C. 4321 et seq.) as amended.

D. The Federal Land Policy and Management Act of October 21, 1976 (P.L. 94-579).

E. Departmental Manual 235.1.1.A., General Program Delegation, Director, Bureau of Land Management.

F. California Fish and Game Code Sections 900-903, 1900-1913, 1925 1926, 2050-2055.

.04 Responsibility

A. State Director (SD), within California and a portion of northwest Nevada, is responsible for developing and implementing programs for the conservation of officially listed species; for the protection and management of officially determined Critical Habitats; and for ensuring BLM compliance with the ESA following policies, procedures, and other guidance provided by the Director. This shall be accomplished primarily through appointment, authorization, and supervision of a State Office Endangered Species Coordinator (SOESC) whose responsibilities include the following:

1. Coordinating with all appropriate BLM field offices, FWS Regional and Area Offices, official Federal recovery teams, field offices of other Federal agencies, California State agencies, local conservation organizations, and other appropriate groups or individuals;

2. Developing and maintaining lists of endangered, threatened, and/or rare species occurring within California, with particular reference to BLM administered lands;

3. Reviewing recovery plans, recovery team nominations of BLM personnel, listing proposals, status reviews, proposals for essential and

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

Critical Habitat designations, and biological opinions of the FWS resulting from formal or informal Section 7 consultations (see .1384) affecting rare, threatened, or endangered species on BLM-administered lands in California.

4. Developing, for use within California, additional policy and technical guidance to supplement BLM Manual Section 6840 or other guidance. This includes, but is not limited to, developing policies, objectives, general procedures, and priorities relating to State-listed rare or endangered species sufficient to comply with California State laws not superseded by Federal laws or regulations;

5. Developing educational materials and training aids for field personnel in order to increase their knowledge of the philosophical, biological, and legal ramifications of the ESA, related State legislation, and BLM's systematic approach to conserving officially listed species;

6. Promoting the development and implementation of Habitat Management Plans for officially listed species, and assisting field offices in their Habitat Management Planning effort, upon request;

7. Providing any necessary State Office technical review and evaluation of Bureau actions regarding possible impacts on officially listed species or their habitats, including review of planning documents, plans, major EARs, and EISs to ensure ESA compliance;

8. Assisting District personnel (upon request) in conducting formal and informal consultations on officially listed species and in conferring with the FWS on species proposed for Federal listing; and

9. Identifying habitat enhancement needs and priorities for officially listed species and incorporating these needs and priorities into the Bureau's planning and budgeting processes.

B. District Managers (DM), within their respective areas of jurisdiction, are responsible for implementing the Bureau's policies and programs concerning the conservation of endangered, threatened, and rare species; for the protection and management of officially determined Critical Habitats; for following procedures, policies, and priorities established by the California State Director; and for complying with 50 CFR 402 (see Appendix 2) concerning consultation with the FWS (see .1384). This shall be accomplished primarily through assignment of the following responsibilities to the most qualified available person(s) in each District Office (e.g., the District Wildlife Biologist and/or Botanist);

1. Carrying out inventories or contracting for studies to determine the presence or absence of officially listed species on BLM-administered lands (see .1382 and .1383) and to monitor the status of such species thus allowing the detection and correction of downward population trends.

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

2. Maintaining contacts with local offices of the California Department of Fish and Game and other appropriate Federal agencies, conservation organizations, and individuals interested in or responsible for the management of officially listed species;
3. Ensuring that the legal requirements pertaining to officially listed species are considered in the Bureau's inventory, planning, environmental assessment, and decision-making processes (see. 13B2 and .13B3);
4. Developing, implementing, and evaluating Habitat Management Plans which benefit officially listed species;
5. Determining the need for consultations, technical reviews, and evaluations (see .13B4) concerning BLM actions to ensure compliance with the ESA; and
6. Conducting formal and informal consultations and conferences with the FWS to meet the requirements of 50 CFR 402.

.05 Definitions. (See Glossary.)

.06 Policy. It is Bureau policy in California to conserve federally and State-listed rare, threatened, or endangered plants and animals and to utilize its authorities in furtherance of the purposes of the ESA and similar California State laws. The objectives of all Bureau activities and programs will include the means to improve the habitat and provide justification for delisting such species. State laws protecting plants and animals faced with local extirpation or premature extinction apply to BLM activities and programs to the extent that they are consistent with the Federal Land Policy and Management Act (P.L. 94-579) and other Federal law.

.1 Federally Listed Threatened and Endangered Species

.11 Applicability of the Endangered Species Act (ESA). Compliance with the ESA is mandatory in all BLM activities and programs prior to making final decisions. Regardless of when planning, review, and/or implementation began on an activity or program (even retroactively to before the effective date of the ESA, December 28, 1973), compliance with the ESA is mandatory whenever:

- A. The Bureau's ongoing activities and programs (see .12) may affect a federally listed or proposed listed species or its habitat;
- B. The Bureau's influence or control has yet to be exercised;
- C. The Bureau's permitting, licensing, leasing, or other influence or control remains discretionary indefinitely;
- D. The final decision on the activity or program remains to be made; or

6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

E. Work on a BLM project has yet to be performed or can be modified to conserve federally listed species.

.12 Types of Activities and Programs Affected by the ESA. Activities, programs, and procedures requiring consideration of ESA compliance include, but are not limited to, the following:

A. Planning:

1. Preparation of Resource Management Planning documents; and
2. Input into activity plans (e.g., Allotment Management Plans (AMPs) and Habitat Management Plans (HMPs))

B. Environmental Assessment:

1. Environmental Assessment Records (EARs); and
2. Environmental Impact Statements (EISs).

C. Lands and Realty Actions:

1. Land sales, withdrawals, exchanges, and acquisitions;
2. Rights-of-way applications;
3. Non-Bureau energy initiatives;
4. Desert land entries;
5. Temporary Use Permits (TUPs);
6. Easement acquisitions; and
7. Alaska Native Claims.

D. Livestock Grazing Management:

1. Grazing leases and permits, both renewals and new issuances;
2. Season-of-use schedules;
3. AMP development, evaluation, and revision;
4. Custodial management;
5. Exchange-of-use agreements; and
6. Range improvement efforts.

E. Wild Horse and Burro Management.

6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

F. Watershed Management:

1. Vegetation manipulation;
2. Water detention or retention programs;
3. Pesticide and herbicide applications;
4. Soil surveys;
5. Emergency fire rehabilitation and protection;
6. Water quality control; and
7. Other land treatments.

G. Wildlife Habitat Management:

1. Wildlife inventory efforts;
2. Setting of priorities for HMP development;
3. HMP development and implementation;
- 4. Habitat improvement efforts; and
5. Animal damage control authorizations.

H. Forest Development and Management:

1. Timber sales;
2. Intensive silvicultural practices;
3. Easement acquisitions; and
4. Forest pest control.

I. Recreation Management:

1. Implementation of off-road vehicle designations;
2. Development of intensive recreational use areas;
3. Visual and cultural resource management;
4. Planning and operation of national trails;
5. Wilderness studies, designation, and management; and
6. Designation and management of wild and scenic rivers.

6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

J. Fire Management:

1. Fire management plans; and
2. Prescribed burning.

K. Energy and Minerals Development:

1. Offshore oil and gas leasing and development;
2. Coal leasing and development;
3. Onshore oil and gas leasing and development;
4. Geothermal leasing and development;
5. Oil shale leasing and development;
6. Other mineral leasing and development;
7. Mineral material sales;
8. Mined land rehabilitation; and
9. Other surface management actions.

L. Other Programs:

1. Cadastral survey;
2. Access and transportation rights-of-way;
3. Interagency land and resource management;
4. Public safety and protection;
5. Research and development; and
6. Law enforcement.

.13 Compliance with the ESA. Section 7 of the ESA applies to all activities and programs where BLM involvement or control remains and may affect (positively or negatively) the continued existence of a listed species or adversely modify or destroy its Critical Habitat (see .11 and .12). This is true whether or not an activity or program is processed through the Bureau's planning or environmental assessment procedures. Day-to-day BLM operations require the same compliance as major projects and actions. Certain Section 7 mandates also apply to proposed federally listed species (see .13B1).

A. Section 7 Mandates.

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

1. Conservation Programs. Within its authorities, BLM must plan and implement programs for the conservation of federally listed threatened or endangered species that occur on BLM-administered lands. As with many definitions of terms used in the ESA, the word "conservation" has much broader meaning than commonly used (see Glossary). Conservation under the ESA requires affirmative management rather than merely saving that which remains. The purpose is not simply to protect species which are threatened or endangered; rather, the purpose is to ensure that a maximum effort is made to restore the numbers of or remove the threats to such species to the point that they no longer need be considered threatened or in any way endangered.

a. Habitat Management Plans (HMPs). The major way in which the BLM shall conserve listed plants or animals in California is through the development and implementation of HMPs (see BLM Manual Section 5780). HMPs can also be implemented to protect habitats of plants with restricted distribution and to rehabilitate habitat within the historic range of plants which have suffered declines.

b. Areas of Critical Environmental Concern (ACECs). Where special management attention is needed to protect and prevent irreparable damage to the habitats of rare, threatened, or endangered species, ACECs may be identified and designated (see: "Areas of Critical Environmental Concern, Policy and Guidelines, U.S. Bureau of Land Management, June 1980").

c. Emergency Situations. Certain emergency situations for wildlife and plants may require activities or programs outside the HMP and ACEC processes. Wildlife examples would include surveillance of nests of endangered birds where off-road vehicle use, rock climbing, or other human disturbances pose an imminent threat to nesting success; salvage or rescue operations whenever the threat to a species or population increases appreciably in a short period of time; and law enforcement whenever an officially listed animal is directly threatened by any person.

2. Jeopardy. BLM, through its activities, programs, and/or decisions, must not jeopardize the continued existence (see Glossary) of any federally listed threatened or endangered species. This is the most general of the three Section 7 mandates in that it applies even where Critical Habitat has not been determined (see .13A3).

a. Applicability of the Jeopardy Concept. The BLM cannot conduct any activity or program which reasonably would be expected to reduce the reproduction, numbers, or distribution of a listed species to such an extent as to appreciably reduce the likelihood of the survival and recovery of that species in the wild. When the Bureau screens its activities and programs to ensure that it does not jeopardize the continued existence of a species, both survival and recovery must be considered. Just as with the definition of conservation, the concept of jeopardy is expanded beyond common usage to include affirmative management (providing for the species' recovery) as well as simple protection (ensuring the species' survival).

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

b. Compensation. Frequently, FWS biological opinions include reasonable and prudent alternatives (see Glossary) which, if implemented, eliminate jeopardy to the species involved through compensation (purchase of habitat, habitat improvements, reclamation of disturbed habitats, etc.) outside of the area affected by an activity or program. (This should not be confused with mitigation which reduces but does not eliminate jeopardy.) The concept of compensating to eliminate jeopardy is supported by Solicitors' opinions and should be used wherever appropriate.

3. Critical Habitat. BLM, through its activities, programs, and/or decisions, must not destroy or adversely modify the Critical Habitat (as determined by FWS pursuant to Section 7 of the ESA and 50 CFR 402) of any federally listed threatened or endangered species. It is the intent of the FWS to officially designate Critical Habitat for each federally listed threatened or endangered species (see Federal Register, Vol. 40, pages 17764-17765, May 16, 1975). Once officially designated, Critical Habitat (note the capitalization) takes on a legal meaning; thus the term "Critical Habitat" should only be used in the context of its legal definition.

a. FWS Concept of Critical Habitat. The FWS published the concept of Critical Habitat in the Federal Register, Vol. 43, pages 874-879, on January 4, 1978 (see Glossary and Appendix 2). The Director of the FWS will consider the physiological, behavioral, ecological, and evolutionary requirements for the survival and recovery of listed species in determining what areas or parts of their habitat (exclusive of those existing manmade structures or settlements which are not necessary to the survival and recovery of the species) are Critical. These requirements include, but are not limited to:

- (1) Space for individual and population growth and for normal behavior;
- (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
- (3) Cover or shelter;
- (4) Sites for breeding, reproduction, or rearing of offspring; and, generally,
- (5) Habitats that are protected from disturbances or are representative of the geographical distribution of listed species.

b. Interpretation of FWS Concept of Critical Habitat. Under this concept, the destruction, disturbance, modification, curtailment, or subjection to human activity of habitat considered Critical for a given species would not conform with Section 7 of the ESA, whenever such an action might result in a reduction in the numbers or distribution of that species of sufficient magnitude to adversely affect the potential for reasonable expansion or recovery of that species. It must be emphasized

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

that the primary intent of the ESA is to maintain and restore presently threatened or endangered species. Thus, application of the term "Critical" is not restricted to just the habitat necessary to support a minimum population. It is emphasized further that only specific kinds of activities and programs are detrimental to Critical Habitat. There may be many activities and programs which can be carried out within Critical Habitat zones of a species that would not result in a reduction in the numbers or distribution of that species.

c. Mitigation in Critical Habitat Zones. The Bureau's responsibility to ensure against the destruction or adverse modification of Critical Habitat cannot be satisfied with the adoption of project modifications which reduce, but do not eliminate, the adverse impacts of the project on Critical Habitat. Anything short of a guarantee of total protection for the value of Critical Habitat to a given species fails to satisfy the Bureau's responsibilities under Section 7 of the ESA. The traditional concepts of mitigation, which would have been acceptable under the 1966 ESA (P.L. 89-669), are no longer appropriate under the ESA of 1973. This concept is supported by several Solicitors' opinions and court cases.

d. Formal Critical Habitat Recommendations. BLM recommendations to the FWS for the official determination of Critical Habitats on BLM-administered lands in California will be based on prior delineations of essential habitats (see .14B). Submissions will be made from District Offices through the California State Office to the FWS regional office in Portland, Oregon, with copies to the Bureau's Washington Office.

(1) Critical Habitat Description. Critical Habitat recommendations must be precise and should include: identifiable boundaries, legal or geographical descriptions (where appropriate), maps of appropriate scale, any necessary special requirements, and a discussion of why each area and its elements are critical.

(2) Sources of Data. Recommendations should include copies of all sources of data used in preparing the submission. Such sources might include results of inventories (see .13B2a), administrative reports, maps, master plans, contract studies, and published literature. In addition, involvement of State agencies and private citizens is encouraged in the identification process; therefore, a summary record of these contacts should also be included.

(3) Impacts of Critical Habitat Determination. Whenever the FWS prepares a proposed rulemaking to determine Critical Habitat, an Environmental Assessment (EA), in compliance with the National Environmental Policy Act of 1969 (NEPA), must be prepared. In order that Critical Habitat recommendations received from the Federal agencies be acted upon in an efficient manner, a discussion and description of potential impacts and conflicts should be included. It is of particular importance to note potential or expected conflicts between a Critical Habi-

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

tat designation and proposed or ongoing projects which are authorized, funded, or carried out by the Federal Government.

**B. Methods of Program Compliance.** Each responsible official of BLM in California must initiate a system whereby he/she may be assured that all ongoing and proposed Bureau activities and programs which may affect a federally listed or proposed listed species are identified and reviewed to ensure compliance with the ESA. The three main processes to be used to accomplish a thorough review and analysis (screening) of Bureau activities and programs that may affect listed species, their Critical Habitats, or proposed species are the BLM planning system, the Bureau's environmental assessment procedures, and the FWS/NMFS ESA interagency cooperation regulations (see .1384 and Appendix 2). In using these processes to screen Bureau activities and programs for endangered species involvement, maximum use must be made of in-house BLM expertise; however, provisions must also be made to allow contracted special studies, surveys, inventories, and research in the absence of suitable Bureau expertise and/or capability.

**1. Conference with the FWS on Proposed Species.** Section 7(a)(3) of the ESA makes it mandatory that Federal agencies confer with the FWS on any agency activity or program which is likely to jeopardize the continued existence of any species proposed to be listed under Section 4 of the ESA or to result in the destruction or modification of Critical Habitat proposed to be designated for such species (must be announced in the Federal Register). This conference should be initiated with the Sacramento Area Manager of FWS at the earliest possible time by the appropriate District Manager. A conference initiated between the BLM and the FWS should consist of informal discussions concerning the extent of the possible adverse impacts of the activity or program on the proposed species or Critical Habitat at issue. The conference should result in a conclusion on the possible extent of the impacts of the activity or program on the proposed species or proposed Critical Habitat and on ways to ameliorate those impacts (i.e., a biological opinion). The FWS should also provide the Bureau with an indication of when the decision will be made with respect to a final determination that the species is endangered or threatened or the final designation of Critical Habitat. The conference is designed to assist the Bureau in identifying and resolving all potential endangered species conflicts at an early stage in the planning process.

**2. Screening Using BLM Inventories and Planning System.**

**a. Inventories and Species Status Reports.**

(1) **Inventory Responsibility.** It is the direct responsibility of BLM to prepare and maintain on a continuing basis an inventory of the threatened and endangered species (and their habitats) on all BLM-administered lands. The basic approach to these inventories is as described in BLM Manual Section 6602 supplemented by data collected using accepted Bureau inventory efforts (see BLM Manual Section 1731, Soil-Vegetation Inventory Methods). However, species specific techniques may be necessary and can be used. The concept includes verification of spec-

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

ies occurrence (BLM Form No. 6602-1) within geographically discrete habitat cells delineated using the Bureau's Soil-Vegetation Inventory Methods. This inventory shall be used to develop and revise land-use plans which consider the relative scarcity of the values involved and give priority to the designation and protection of ACECs. Threatened and endangered species are scarce by definition, and their Critical Habitats are potential ACECs by implication.

(2) Inventory Data Needs. Inventory data needed by the BLM on officially listed species fall into the following general categories:

(a) Documentation of the presence or absence of federally listed or proposed listed species or their habitats in each Planning Unit (see BLM Manual Sections 1605, 6602, and 1731);

(b) A map overlay of their distribution in each Planning Unit (see BLM Manual Section 1605), unless such a display of information would adversely affect the species;

(c) Review of historical reports of such species from the area, including consideration of museum specimens, accounts in the scientific literature, and knowledge of specialists and local naturalists.

(d) Baseline population and life history information on a species-by-species basis (see BLM Manual Section 6602), including a discussion of the reasons for endangerment;

(e) Specific management opportunities for expansion, improvement, or maintenance of the habitats of such species; and

(f) A list of literature citations and knowledgeable individuals who may be consulted for detailed information and recommendations concerning the species in question (see BLM Manual Section 1605).

(3) Species Status Reports. Inventory data and other information should be synthesized and displayed in planning documents using Species Status Reports. Preparation of reports will often be by contractual arrangement with outside (non-BLM) biologists, botanists, or other qualified specialists, but may be prepared by qualified BLM personnel where available. All work should be coordinated with other agencies which may be preparing or contracting for similar reports on the same species. To ensure consistency of information, Species Status Reports should include information items in the same general format as shown in Appendix 4 for animals or Appendix 5 for plants. When a study is done by contract, the Bureau can check off the items on the guidelines in Appendix 4 or 5 which should be completed in fulfillment of the contract. Species Status Reports should never be considered a final product, but should be upgraded and revised as new information becomes available. Copies of each Species Status Report and updates to reports should be sent directly to the State Office (C-930), the Washington Office (W0-240), the appropriate

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

Regional and Area Offices of the FWS, and any other appropriate agencies or organizations.

b. Resource Management Planning. The optional long-term process for screening BLM activities and programs for possible involvement of federally listed species is the Bureau's Planning System (BPS) (see 43 CFR 1601). Management Situation Analyses (MSA) must be developed to clearly identify and protect federally listed species and their habitats. These habitats must be shown on the MSA overlays so that possible impacts caused by BLM activities or programs can be fully analyzed during alternative development and analysis. (Exceptions can be made if overlay display would in itself jeopardize the species through unnecessary publication of sensitive inventory information.) Resource management planning recommendations must be based upon sound biological data to ensure that they are tracked through Resource Management Plan (RMP) decisions. RMP decisions in areas where federally listed species occur cannot be made in the absence of sound biological data.

c. Planning System Screening of a Proposed Action. Responsible BLM officials must review and analyze (i.e., screen) all BLM proposed activities and programs to the degree allowed by existing BPS documents. All such screening is chargeable to the budget activity (range, forestry, minerals, etc.) which initiates the action to be screened--not to the wildlife activity. If compliance cannot be ensured through use of RMP decisions, or if a construction project is involved, then a special biological assessment (see .1383) must be conducted. If RMP decisions are thought to be adequate at the outset of screening, then the following procedures must be followed. Note that the California State Director has delegated Section 7 consultation and related responsibilities to District Managers.

| <u>Responsible Office/Official</u>                             | <u>Step</u> | <u>Action</u>   |
|--|-------------|---|
| District Office<br>Biologist or<br>Qualified Designee<br>(BLM) | 1.          | Participates in the development and/or review of Bureau activities and programs to advocate the conservation of listed species and ESA compliance. If the program or activity is not a construction project or if it is a construction project for which no EIS is necessary, then go on to Step 2. |
|  | 1a.         | If the activity or program is a construction project and an EIS is necessary, then the District Biologist prepares (and submits to the District Manager) a draft request to the Sacramento Area Manager of the FWS asking for a list of possible  |

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

- threatened or endangered species in the proposed action area.
- |   |   |
|---|---|
| District Manager (BLM)                                | lb. Transmits the species list request to the Area Manager of the FWS.  |
| Area Manager (FWS)                                    | lc. Prepares a list of all officially listed and proposed listed threatened or endangered species that could occur in the proposed action area. Transmits this list to the BLM District Manager.  |
| District Manager (BLM)                                | ld. Evaluates the FWS response and determines the need to prepare a biological assessment using the following criteria: <ul style="list-style-type: none"> <li>- If no threatened or endangered species occur in the proposed action area according to the FWS, then Section 7 consultation is unnecessary. This should be documented in the EIS to end the screening process (see .13C).</li> <li>- If one or more federally threatened or endangered species may occur in the proposed action area, then a biological assessment must be prepared (skip to Step 4)</li> </ul> |
| District Office Biologist or Qualified Designee (BLM) | 2. Determines if federally listed species or their habitats are involved using the best available information, especially the appropriate inventory and planning documents. Submits recommendations to the DM, including a determination of data adequacy.  |
| District Manager (BLM)                                | 3. Evaluates the proposed activity or program and the biologists recommendations in light of the Bureau's ESA and National Environmental Policy Act (NEPA) responsibilities. Three possible conclusions might be reached: <ul style="list-style-type: none"> <li>- Implementation of the proposed activity or program will not affect any federally listed species or its habitat, in which case Section 7 consultation is not necessary. This should be documented in writ-</li> </ul>   |

6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

ing (prior to implementing the action) to end the screening process (see .13C).

- Implementation of the proposed activity or program may affect a listed species or its habitat, in which case the DM must request consultation with the FWS (skip to Step 19), must modify the proposed activity or program, or must abandon the proposed activity or program. Consultation is mandatory regardless of whether the effects may be negative or positive, unless the proposed activity or program is abandoned or else modified to eliminate, not mitigate, the effects.

- Further biological assessment is necessary because the best available information (inventory and planning documents or other sources) is inadequate to determine whether the proposed activity or program may affect a listed species or its habitat, in which case the DM proceeds to Step 4.

4. Determines the level of additional biological assessment needed and the availability of expertise within BLM. Exercises one of the following options:

- Assigns additional in depth biological assessment effort to District Office staff (skip to Step 8).

- Appoints a special biological assessment team to do additional in depth assessment (team may include non-BLM members) (skip to Step 8).

- Requests, through the SD, that State Office biologists and/or Endangered Species Coordinator review and analyze the proposed activity or program in relation to the Bureau's ESA and NEPA responsibilities (go on to Step 5).

5. Upon request, through the SD, determines whether federally listed species or their habitats may be affected based on the best available information. Submits recommendations to the SD and DM, including an evaluation of data adequacy.

State Office  
Endangered Species  
Coordinator (BLM)

## 6840 - THREATENED AND ENDOANGERED PLANTS AND ANIMALS

State Director (BLM)

6. Evaluates the proposed activity or program and all available biological recommendations in light of the Bureau's ESA and NEPA responsibilities. The SD's options are the same as those for the DM in Step 3, except if further biological assessment is necessary, the SD proceeds to Step 7.
7. Determines the level of additional biological assessment needed and the availability of expertise within BLM. Exercises one of following options:
  - Reassigns additional in depth biological assessment effort to District Office staff (go on to Step 8).
  - Appoints a special biological assessment team to do the additional in depth screening (team may include non-BLM members) (go on to Step 8).
  - Assigns additional in depth biological assessment effort to State Office staff (go on to Step 8).

3. Screening Using the Environmental and Biological Assessment Processes.

a. Responsibilities of the BLM. The BPS requires continual updating to remain current and to gain greater specificity. Compliance with the ESA often requires immediate specificity that the planning system cannot always supply. In the absence of adequate planning system data and consideration, the Bureau's immediate need for better information concerning federally listed species must still be met prior to EA and EIS preparation (see BLM Manual Section 1790 and the CEQ Regulations (40 CFR 1500-1508)). If the information listed in 1.3B2a above is not available in resource management planning documents, then ESA compliance (including formal FWS consultation) based on newly obtained information must be documented in the applicable EAs or EISs. This new information must then be inserted into the appropriate inventory and planning documents for future use.

b. Biological Assessments. It is the primary responsibility of the BLM to gather and provide the biological information necessary for an adequate review--internally or during formal consultation--of the effects of its proposed activities and programs on listed species or their habitats. To the extent that they are available, the FWS will, upon request, provide relevant data and reports, personnel, and recommendations for additional studies or surveys, but the FWS is not obligated to fund such additional studies or surveys. In short, the BLM is responsible for

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

programming and budgeting for its own compliance with the ESA. All charges for this compliance must be borne by the BLM budget activity (lands, recreation, onshore oil and gas leasing, etc.) under which the proposed action was initiated--not by the wildlife activity. The procedures for conducting special or accelerated biological assessment efforts to alleviate data inadequacies during activity plan preparation, EA or EIS preparation, or as mandated in the ESA Amendments of 1978 are as follows:

| <u>Responsible Office/Official</u>                                       | <u>Step</u> | <u>Action</u>  |
|--|-------------|--|
| Biological Assessment Team<br>(BLM District or State Office)             | 8.          | Reevaluates and reanalyzes the proposed activity or program and all related documents.   |
| District Manager (BLM)<br>(or State Director if Team is in State Office) | 9.          | Conducts a thorough search of files, literature, recovery plans, etc., to ensure that the best available information has been considered.  |
| Biological Assessment Team   | 10.         | Conducts an onsite inspection to evaluate the suitability of existing habitats for listed species. This may be repeated at a later date by the FWS during the threshold examination phase of the formal consultation process (see Step 22).  |
|  | 11.         | Submits recommendations to the DM, including a determination of data inadequacies, if any.   |
|  | 12.         | Evaluates the proposed activity or program in light of the Bureau's ESA and NEPA responsibilities. The OM's or SD's possible conclusions are the same as those listed in Step 3 (see above), except if further biological information is needed the process continues on to Step 13. |
|  | 13.         | Determines what inventories, studies, and/or research are needed to alleviate data inadequacies.   |
|  | 14.         | Determines if assistance is needed from other agencies, universities, or authorities to collect new data. Informal consultation with the FWS at this time will not satisfy the formal consultation requirements of Section 7 of the ESA.   |

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

District Manager (BLM)  
(or State Director)

14a. If outside assistance is needed, requests or contracts for any necessary assistance.

15. Ensures that inventories, studies, and/or research are conducted sufficient to ensure compliance with the ESA or, at least, to determine whether or not the proposed action may affect a listed species.

Biological Assessment Team

16. Analyzes the new information and determines if the proposed activity or program may affect a listed species or its habitat.

17. Submits recommendations to the DM or SD and delivers all new data to the District or Area biologist for updating the appropriate inventory and planning documents.

District Manager (BLM)

18. Evaluates the proposed activity or program in light of the Bureau's ESA and NEPA responsibilities. Two possible conclusions might be reached:

- Implementation of the proposed activity or program will not affect any federally listed species or its habitat, in which case Section 7 consultation is not necessary. This should be documented in writing prior to implementing the action (see .13C.) to end the screening process.

- Implementation of the proposed activity or program may affect a listed species or its habitat, in which case the DM must request consultation with the FWS (skip to Step 19), must modify the proposed activity or program, or must abandon the proposed activity or program. Consultation is mandatory regardless of whether the affects may be negative or positive, unless the proposed activity or program is abandoned or else modified to eliminate, not mitigate, the effects.

#### 4. Formal Section 7 Consultation

a. Background. The Directors, FWS and NMFS, jointly issued regulations for interagency consultation pursuant to Section 7 of the ESA

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

in the Federal Register, Vol. 43, pages 869-876, January 4, 1978 (see Appendix 2). These regulations are in Part 402 of Chapter IV of Title 50, Code of Federal Regulations (50 CFR 402). Details concerning the rationale for the mandatory nature of Section 7 consultation, the retroactivity of Section 7, the relationship between Section 7 consultation and EIS review procedures under NEPA, and many other important interpretations that led to those regulations can be found in the Federal Register release (Appendix 2).

b. Section 7 Consultation Procedures.

(1) Initiation. If it is determined that a proposed BLM activity or program will not affect listed species or their habitats, consultation need not be initiated unless requested by the FWS. The option not to consult can be exercised at several points when a proposed activity or program is screened using the BPS (see .1382) or the Bureau's environmental and biological assessment procedures (see .1383). However, it is important to note that if threatened or endangered species are known to occupy land which will be affected by a BLM activity or program, and if individuals or populations of such species may be destroyed or displaced by the action, then Bureau officials cannot make a "no effect" determination. It is not a BLM manager's prerogative to dismiss the effects of an activity or program on individual threatened or endangered organisms without first consulting with the FWS to clarify the biological implications of the jeopardy and Critical Habitat issues as they pertain to the entire species. Note that consultation must be initiated on all activities or programs that may affect threatened or endangered species habitat, not just where officially determined Critical Habitat is involved. If consultation is deemed necessary, the District Manager, must convey a written request for consultation and all relevant information to: the Area Manager, U.S. Fish and Wildlife Service, 2800 Cottage Way, Sacramento, California 95825. Consultations will be processed by the Sacramento Endangered Species Office. Once a request for consultation is made, good faith consultation precludes the Bureau from making any irreversible or irretrievable commitments of resources until consultation has been completed and a biological opinion has been issued by the FWS. Where the BLM funds or authorizes an activity or program to be carried out by a non-federal entity, the Bureau--not the non-Federal entity--shall initiate the formal consultation process.

(2) Scope and Form.

(a) Aggregate Consultations. Any request for consultation may involve a single action or, subject to the approval of the FWS Area Manager, may encompass a number of similar activities or programs within a given geographical area or administration unit. A consultation may also include all activities or programs involving one or more species in a District. Consultation under Section 7 may be consolidated with interagency cooperation required by other statutes, such as the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) or NEPA. However, the satisfaction of the requirements of these other statutes does not in

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

itself relieve a Federal agency of its obligation to comply with the consultation procedures set forth in 50 CFR 402.

(b) Content of Requests for Consultation. Requests for Section 7 consultation must include a description of the activity or program to be considered; a description of the specific area that would be affected by the activity or program; a description of any listed species or their Critical Habitat that may be affected by the activity or program; a description of the manner in which the activity or program may affect any listed species or Critical Habitat and an assessment of any cumulative effects; reports, including an EIS or an environmental assessment or any other biological assessments prepared; and any other relevant available information on the activity or program and the affected listed species.

(3) Informal Consultation. Informal consultation may be carried out at any appropriate level between the BLM and FWS. It may occur prior to a written request for a species list leading to the preparation of a biological assessment (see .13B2c) or prior to the initiation of formal consultation. Such informal consultation may include exchange of information and assistance with respect to the effects that a proposed activity or program or alternatives thereto may have on species that are listed or proposed to be listed or on Critical Habitat. Such informal consultation should attempt to identify potential conflicts with listed and proposed species or their Critical Habitat and the means for resolving such conflicts. However, informal consultation is supplemental to, not a substitute for, formal consultation.

(4) Formal Consultation Procedures. The steps and options available to the BLM and the FWS during formal consultation follow. All charges for consultations must be borne by the BLM budget activity under which the proposed action was initiated--not by the wildlife activity.

| <u>Responsible Office/Official</u> | <u>Step</u> | <u>Action</u>   |
|------------------------------------|-------------|---|
| District Manager (BLM)             | 19.         | Initiates consultation with the FWS; submits to the FWS Sacramento Area Manager all information and documents that the FWS might need to develop a biological opinion.  |
| Area Manager (FWS)                 | 20.         | Conducts a threshold examination of the proposed activity or program. This will include a review of available information and may include an onsite inspection of the area. District and/or State Office Endangered Species Coordinators should accompany the FWS into the field. |

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

21. Responds back to the BLM within 90 calendar days of receipt of original request. The response may be a final biological opinion accompanied by a statement of the facts and documentation on which the opinion is based. Or the response may be that the level of available information is inadequate to render a biological opinion (see Steps 23-25).
- District Manager (BLM)      22. Evaluates the FWS response. Several possible conclusions could be reached:
  - Implementation of the proposed activity or program will not affect any federally listed species or their Critical Habitats, in which case no further Section 7 consultation is necessary. This should be documented in writing (see .13C) to end the consultation process.
  - Implementation of the proposed activity or program will promote the conservation of listed species, in which case no further Section 7 consultation is necessary. The FWS, to the extent feasible, will assist in carrying out such programs if requested to do so by BLM. The results of the biological opinion should be documented in writing prior to implementation (see .13C).
  - Implementation of the proposed activity or program is likely to jeopardize a listed species or destroy its Critical Habitat, in which case further consultation can be requested to explore the possible effects in greater detail or else the proposed activity or program can be modified or abandoned.
  - Information is inadequate to conclude that the proposed activity or program is not likely to jeopardize the continued existence of a listed species or destroy its Critical Habitat, in which case further consultation with the FWS shall be conducted (go on to Step 23).
23. Initiates biological surveys or studies necessary to determine how the proposed

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

activity or program may affect listed species or their Critical Habitats. This may require a return essentially to Step 13 or, at least, an impact analysis of the proposed activity or program.

24. Submits the results of any new studies and impact analyses to the FWS Sacramento Area Manager.

## Area Manager (FWS)

25. Determines if information is adequate to issue a final biological opinion. Two possible conclusions might be reached:

- The information is not adequate, in which case the FWS notifies the BLM (return to Step 23).
- The information is adequate, in which case the FWS has 90 days to issue a biological opinion unless a longer or shorter period had previously been negotiated.

26. Issues a final biological opinion accompanied by a statement of the facts and documentation on which the opinion is based. Consultation is ended unless reinitiated by BLM or FWS for some reason such as:

- New information reveals impacts of the proposed activity or program that may affect listed species or their habitats;
- The proposed activity or program is subsequently modified; or
- A new species is listed that may be affected by the proposed activity or program.

## District Manager (BLM)

27. Evaluates the FWS biological opinion. The possible conclusions include the following:

- Implementation of the proposed activity or program is not likely to affect any federally listed species or their Critical Habitats, or implementation will promote their conservation, in which

6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

case the results of the biological opinion should be documented in writing prior to implementing the action (see .13C).

- Implementation of the proposed activity or program is likely to jeopardize a listed species or destroy its Critical Habitat, in which case the proposed activity or program must be modified or abandoned.

C. Documentation of ESA Compliance Efforts. Section 7 consultation is a formal written process. Documentation of a decision by the BLM not to consult should also be in writing in the appropriate District files. The procedures for doing this and for documenting actual consultations are as follows.

1. Documentation of Informal Consultations. Any informal consultation with the FWS, other Federal agencies, State agencies, academicians, environmental interest groups, or other parties concerning endangered species matters should be documented in the case file or other appropriate files. Because of the legally binding, mandatory nature of formal Section 7 consultation, it is important to document all steps leading to the conclusion to consult or not to consult. It must be documented that such decisions were not made arbitrarily. Note that informal consultation can be conducted at all organizational levels within the Bureau, but it will not substitute for formal Section 7 consultation whenever an action may affect a listed species or its habitat.

2. Documentation that No Consultation is Needed.

a. District Office Files. Any time that a District Manager determines that an activity or program will not affect federally listed species or their habitats, a memorandum so stating should be written to the appropriate files and signed by the responsible official. Such negative declarations should be documented for all types of actions listed in .12 and for any others where documentation may subsequently be needed. A measure of common sense must be applied (e.g., personnel actions, procurement actions, and many other aspects of the Bureau's varied responsibilities would not require such documentation). Information regarding the steps taken and a brief summary of the data used in drawing the no-consultation conclusion should be included in these negative declarations.

b. State Office Files. Any time that the State Director is asked to concur with a District Manager's determination that no Section 7 consultation is necessary on an activity or program, a written negative declaration should be sent by memorandum to the appropriate District Manager; copies should be inserted in appropriate State and District Office files. The scope and content of such a memorandum are similar to those established for District Offices (see .13C2a).

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

3. Documentation in EAs and EISs. In most cases, the need or lack of need to consult formally with the FWS will be determined when specific activities or programs are being proposed by the Bureau--actions which require an EA, EIS, or other type of environmental assessment. BLM Manual Section 1790 and the CEQ Regulations (40 CFR 1500-1508) require written documentation of the results of consultations. Formal Section 7 consultation should be completed before the draft EIS is submitted for public comment. The logical time to initiate consultation is upon completion of the description of the proposed activity or program (Section I of an EA or Chapter I of an EIS). However, if early consultation has not been initiated, but is needed, formal consultation may be conducted at the time of interagency review under NEPA. This review alone does not relieve the Bureau of its responsibilities under the ESA; rather it is merely a medium through which consultation can be conducted late in the analysis of a proposed action. Earlier consultation is much more desirable because costly delays and abandonment of activities or programs may be avoided. If consultation with the FWS is incorporated into the NEPA process, note that the FWS has 90 days to respond to a request for consultation, while NEPA only requires 45 days for the review of a draft EIS. In addition, at least another 45 days will be required if the information submitted with the original request is inadequate. All of the following documentation guidance (in addition to applying to the specific sections of EA's or EIS's mentioned below) also applies to alternative proposals, data base descriptions, and impact assessments incorporated in the alternatives sections of EA's or EIS's.

a. Negative Declarations and Documentation of Positive Effects. If a District Manager determines that the proposed activity or program will not affect listed species or their habitats, or, if the FWS biological opinion makes a similar determination or states that the proposed action would promote the conservation of listed species, then the following documentation is necessary:

(1) Description of the Proposed Action. No mention need be made of listed species or their habitats.

(2) Description of the Existing Environment. If no listed species are involved, document with a negative declaration in this section of the EA or EIS. If listed species are present, but there will be no effects, mention only the species and their current list status.

(3) Anticipated Impacts. State that the proposed activity or program will have no effects on any listed species, and include sufficient supporting rationale. If positive effects will result, summarize the conclusions of the required biological opinion provided by the FWS.

b. Insufficient Data. If a State Director, District Manager, or the FWS determine that data are insufficient to establish that the proposed activity or program may or may not affect listed species, but they suspect that a threatened or endangered species may be involved, or their habitats, then the following documentation is necessary:

6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

(1) Description of the Proposed Action. State that a survey of essential habitats and Critical Habitats for listed species will be made prior to making a decision to take any action that may affect such species. Also state that should BLM determine that there may be an effect on listed species or their Critical Habitats, then formal consultation with the FWS will be initiated. If possible, conduct all surveys so that the "may-effect" determination can be included in the draft and final EAR or EIS.

(2) Description of the Existing Environment. List the species that may be involved, their current life status, and any available habitat or population data that are directly applicable to the impact assessment. If available, briefly describe major baseline data gaps identified by the BLM or by the FWS in their determination of data insufficiency. Describe any efforts to collect these data and the expected data collection completion date.

(3) Anticipated Impacts. Include the preliminary conclusions of the impact assessment relating to the listed species. If available, briefly describe major data gaps. Describe efforts to collect the necessary data concerning impacts. State the expected date for completion of data collection.

c. Filing of EARs or EISs Prior to Receipt of FWS Biological Opinion. If BLM determines that there may be an effect on listed species or their habitats, and if consultation has been initiated but no biological opinion has been received, then the following documentation is necessary:

(1) Description of the Proposed Action. State that the BLM determined that the proposed action may affect federally listed species; in accord with 50 CFR 402.04, formal consultation was initiated, but a biological opinion has not yet been received; and in the interim the BLM will not implement any activity or program which would make an irreversible or irretrievable commitment of resources which would foreclose the consideration of modifications or alternatives to the proposed action. Also include the following: should the biological opinion, when received, indicate that the activity or program will likely jeopardize the continued existence of a listed species or result in the destruction or adverse modification of its Critical Habitat, the proposed activity or program will be modified or abandoned, as appropriate. Also indicate that the procedures used are in compliance with BLM Manual Section 6840 and the ESA.

(2) Description of the Existing Environment. List the species that may be involved, their current list status, and any available habitat or population data that are directly applicable to the impact assessment. Reference all data sources.

6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

(3) Anticipated Impacts. State the preliminary conclusions of the impact assessment relating to the listed species.

d. Documentation of Adverse Effects on Listed Species or Their Critical Habitats.

(1) If the draft EA is not completed or if the EIS has not reached the preliminary draft stage, the proposed activity or program should be changed to avoid the adverse effects.

(2) If the preliminary draft EIS stage is past, document in the final EIS all measures to be taken which will eliminate all adverse effects. This documentation shall appear in the chapter which describes the proposed activity or program. When describing the existing environment, list the species, their current list status, and all habitat and population baseline data pertinent to the understanding of the possible impacts. When discussing the anticipated impacts, state the conclusions and rationale contained in the FWS biological opinion.

(3) If the final EIS has been published when the adverse effects on listed species or their Critical Habitats become apparent, an amendment to the EIS should be prepared and distributed. This amendment should include the information described in .13C3(d)(2).

-14 Assistance to the FWS.

A. Threatened and Endangered Species Listing and Delisting.

1. Background. The FWS has established general procedures for modifying lists of threatened or endangered species which allow any State agency, Federal agency, or private citizen to nominate candidates for listing or to petition for changes in the existing list. Large land management agencies are responsible for inventorying the lands they administer and thus should be actively involved in the listing process for species that inhabit those lands.

2. Listing and Delisting Proposals.

a. District Managers will substantiate with concise biological evidence (see .13B2a) and document any proposal for amending the threatened or endangered species lists.

b. The factors considered in determining whether a species should be listed include the following:

(1) The present or threatened destruction, modification, or curtailment of a species' habitat or range;

(2) Effects of commercial, sporting, scientific, or educational use, such as collecting of listed plants;

6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

- (3) Effects of disease or predation;
  - (4) The effectiveness of existing regulatory mechanisms; and
  - (5) Other natural or manmade factors affecting the species' continued existence.
- c. All proposals will be forwarded to the State Director for review, coordination, and further action.
- d. Proposals will be coordinated with the California Department of Fish and Game (CDFG). Concurrence from the State agency is not necessary, but if objections are raised they should be carefully documented.
- e. State Directors will forward all acceptable proposals to the Regional Director, U.S. Fish and Wildlife Service, Lloyd 500 Building, 500 N.E. Multnomah Street, Portland, Oregon 97232. Copies of all pertinent documents will also be sent to the Director (BLM) to ensure proper coordination when the proposal reaches the FWS Office of Endangered Species in Washington, D.C.

B. Essential Habitat Delineation. It is the primary responsibility of each Federal agency to conduct the appropriate studies and to provide the biological information necessary to delineate essential habitats on the lands it administers. The official determination of Critical Habitat in California is a FWS responsibility (see .13A3). Habitat that possesses the same characteristics as Critical Habitat but which has not yet been officially determined is called "essential habitat" (i.e., potential Critical Habitat).

1. Essential Habitat Concept Justification. Essential habitat should be delineated wherever it occurs on BLM-administered lands. The primary purposes of such delineations are to provide managers with an awareness of habitat for threatened or endangered species, to assist in developing Critical Habitat proposals for species which may be proposed for listing, to allow biologically adequate and timely responses to proposed rulemakings on Critical Habitat, and to facilitate the review of BLM activities and programs when determining the need for consultation with the FWS (see .13B4).

2. Essential Habitat Delineation Procedures. If Critical Habitat has not yet been determined, identify essential habitat areas using criteria for Critical Habitat (see .13A3). Essential habitat will be identified according to the biological requirements of the species and without regard to potential effects on other BLM activities and programs. Essential habitat areas will not be identified if, from the biological standpoint, it is clearly inappropriate to do so. Such could be the case where viable populations cannot be located or if there is insufficient knowledge of the habitat requirements of the species. Essential habitat

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

areas may include all occupied and suitable unoccupied habitat necessary for recovery of the species in its historic range. Priority should be placed on identifying essential habitat within occupied habitat. Minimum requirements for essential habitat delineations are as follows:

- a. A map (1:24,000 orthophotoquad or USGS 7.5-minute topographic quad) to define the boundaries of identified essential habitat on, or adjacent to, BLM-administered lands (use easily recognized natural or cultural features as boundaries);
- b. A written description of the boundaries of each area;
- c. Estimated acreage(s) broken down as occupied habitat and suitable unoccupied habitat, by BLM and other ownership (on "other" ownership include inholdings and lands within one mile of BLM which are identified as essential habitat); and
- d. A background statement containing relevant biological information, pertinent facts about the area(s), the rationale for identifying the area(s) as essential habitat, and literature citations or key references, as appropriate.

C. Recovery Team Participation and Recovery Plan Implementation.

1. Recovery Teams. The FWS often requests that BLM furnish representatives to serve on recovery teams for threatened or endangered species. BLM employees are encouraged to participate, but all nominations must be reviewed in the State Office and then be submitted by the Director (BLM) before final approval by the FWS. BLM members of recovery teams represent the Bureau, but their participation does not necessarily convey BLM approval of the resulting plans. The role of BLM recovery team members is to provide biological input for the species and to interpret BLM policy, programs, and procedures for the team. Recovery team leaders sometimes send draft plans to BLM personnel for technical review and comment. Such technical review does not constitute BLM concurrence with recovery plan recommendations.

2. Recovery Plans. The administrative procedures for official BLM response to recovery plans are:

- a. The FWS will transmit the final draft recovery plan (10 copies) to the Director (240) and/or to BLM State Directors.
- b. The Director (240) is responsible for ensuring that concerned State and District Offices receive copies.
- c. The State Office Endangered Species Coordinator in the State assigned the lead responsibility will coordinate input from all concerned offices and will submit a draft response to the Director (240).

6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

d. The Director (100) will transmit the official response to the Director (FWS) with copies to appropriate BLM Field Offices. The maximum time frame for this review process, from the time the Director (240) receives the draft recovery plan until the Director (FWS) receives the official response, is 60 days. Field Offices involved in the review process will furnish the following analyses.

(1) Evaluate biological information for content and completeness;

(2) Identify any conflicts with other laws and regulations governing BLM programs and activities;

(3) Identify any constraints on other BLM programs, activities, or practices mentioned or implied in the plan;

(4) Evaluate the effects of planned actions carried out by other cooperators on BLM programs;

(5) Identify any modifications of other functional plans, ongoing programs, or routine practices needed to carry out the plan;

(6) Check accuracy of cost estimates for BLM tasks, and evaluate manpower and funding needs; and

(7) Prepare a draft HMP, if appropriate, for accomplishing tasks assigned the BLM under the plan, including a list of the tasks that the BLM needs to do and a projected schedule of accomplishment, a description of any additional actions that the BLM should take that are not indicated in the plan, and a discussion of any tasks identified in the recovery plan which the BLM cannot do (show why they will not be accomplished and recommend appropriate action).

e. Make sure that the action part of the recovery plan that involves BLM-administered lands is fully coordinated with the programs and objectives of the California Department of Fish and Game. Integrate the action plan into the BLM land-use planning process, and enter action items into programming and budgeting requests.

.2 State-listed Rare or Endangered Plants and Animals.

.21 Responsibilities.

A. BLM Officials. Each State Director, District Manager, and Area Manager of BLM must initiate a system whereby he may be assured that all ongoing and proposed Bureau activities and programs which may affect State-listed species are identified and reviewed to ensure compliance with State laws. The main processes to be used to accomplish a thorough review and assessment (screening) of Bureau activities and programs that may affect State-listed species or their habitats are the Bureau Planning System (BPS), the Bureau's environmental assessment procedures, and the

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

development of management guidelines to minimize the effects of a proposed action on State-listed species. In using these processes to screen Bureau activities and programs for involvement of California rare or endangered species, maximum use should be made of internal BLM expertise, CDFG wildlife biologists and botanists, personnel from other Federal agencies, conservation organizations, academic professions, and any other specialists in local faunas and floras or in specific plant or animal taxa.

B. General Compliance. To the extent allowed by the Federal laws governing the use of BLM-administered lands, BLM must comply with California State laws that authorize the listing and protection of plants and animals faced with a significant potential for local extirpation or extinction (see Appendix 3). BLM's responsibility to develop conservation programs for State-listed species, to ensure the continued existence of such species, or to prevent the destruction or adverse modification of their habitats must be consistent with the provisions of the enabling State legislation, the Federal Land Policy and Management Act (P.L. 94-579), and other Federal Laws. Whenever the conservation of State-listed species is appropriate, compliance with pertinent California laws must be ensured in relation to the same types of procedures and actions enumerated in paragraphs .12A through .12K of this Manual Section.

C. Cooperative Agreements. When necessary, cooperative agreements (or supplements to existing agreements) should be prepared at the State Office (see BLM Manual Section 1786) to define the intergovernmental roles of BLM and the CDFG. Such cooperative agreements must be consistent with Washington Office guidance relating to State-listed species and with other cooperative agreements between BLM and CDFG. Copies of all cooperative agreements concerning State-listed species must be sent to the Director (240). The content of these agreements should cover the following items:

1. Species Categories. Clarify which species are classified in the categories of species status (e.g., rare, unique, threatened, endangered, etc.) that are appropriate in California.

2. Coordination with CDFG. The State Director should confer in writing with CDFG whenever activities or programs are proposed which may affect State-listed species or their habitats.

3. Information Transfer. The BLM and CDFG should exchange all technical information that would allow better management of State-listed species and their habitats.

D. Relationship to Sikes Act Programs. Any activity or program planned, developed, maintained, or coordinated by BLM under the Sikes Act for the protection and development of wildlife resources must include provisions for the conservation of all State-listed animals and the habitats on which they depend. Conservation of such animals and habitats should be a key criterion for mutual BLM/State justification of priority Sikes Act programs. The law enforcement authority of the Sikes Act (Title II, Section 204) is one principal means of protecting State-listed animals

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

and their habitats on BLM-administered lands. Although plants are not specifically mentioned in the Sikes Act, the ESA does require their consideration. Thus, plants should be included in Federal/State of California cooperative programs.

**E. Habitat Management Plans for State-listed Species.** District Managers should develop, implement, and evaluate Habitat Management Plans which benefit State-listed species in California.

.22 Screening Using BLM Inventories and Planning Systems.

A. Inventories and Species Status Reports.

1. Inventory Responsibility. It is the responsibility of BLM, not CDFG, to prepare and maintain on a continuing basis an inventory of the State rare and endangered species on all BLM-administered lands. The basic approach to these inventories is as described in paragraph .1382 of this Manual Section.

2. Species Status Reports. (See .1382a(3).)

B. Planning System Considerations. The optional long-term process for screening BLM activities and programs for possible involvement of State-listed species is the BPS (see 43 CFR 1601). Management Situation Analyses (MSA) should be developed to clearly identify and protect federally listed species and their habitats. These habitats should be shown on the MSA overlays so that possible impacts caused by BLM activities or programs can be fully analyzed during alternative development and analyses. (Exceptions can be made if overlay display would in itself jeopardize the species through unnecessary publication of sensitive inventory information.) Resource management planning recommendations must be based upon sound biological data to ensure that they are tracked through Resource Management Plan (RMP) decisions. RMP decisions in areas where federally listed species occur cannot be made in the absence of sound biological data.

C. Planning System Screening of a Particular Proposed Action. Responsible BLM officials must review and assess all BLM proposed activities and programs to the degree allowed by existing BPS documents (all charges are to the activity initiating the proposed action). If compliance cannot be ensured through use of RMP decisions, then a special biological assessment effort (see below) should be conducted. If RMP decisions are thought to be adequate at the outset of screening, then the following procedures should be followed:

| <u>Responsible Office/Official</u> | <u>Step</u> | <u>Action</u>   |
|------------------------------------|-------------|---|
| District Office Biologist or       | 1.          | Participates in the development and/or review of Bureau activities and programs |

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

Endangered Species  
Specialist (BLM)

to advocate the conservation of State-listed species.

2. Determines if State-listed species are involved using the best available information, especially the appropriate inventory and planning documents. Submits recommendations to the DM, including a determination of data adequacy and a list of data sources.

District Manager (BLM)

3. Evaluates the proposed activity or program in light of the Bureau's responsibilities under the NEPA, California State rare and endangered species laws, and fundamental BLM authorities. Three possible conclusions might be reached:

- Implementation of the proposed activity or program will not affect any State-listed species, in which case this should be documented in writing prior to implementing the action (see .13C).
  - Implementation of the proposed activity or program may affect a State-listed species, in which case the DM should modify the proposed activity or program, abandon the proposal, or notify the CDFG. This should be documented by letter or through a Confirmation/Report of Telephone Conversation (BLM Form 1541-3) to ensure that a record exists in the case file. (Go to Step 17 if CDFG is notified at this point.)
  - Information is inadequate to determine whether a State-listed species will be affected by the proposed activity or program. Further biological assessment is necessary. (Go on to Step 4.)
4. Determines the level of additional biological assessment needed and the availability of expertise both inside and outside the BLM. Two possible conclusions might be reached:
    - Additional expertise is needed, so DM obtains it from the State Office or elsewhere.

6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

- All necessary expertise is available in the DO.

5. Assigns the assessment to an assessment team which is led and coordinated by the DO Endangered Wildlife or Endangered Plant Specialists or assigns it solely to the appropriate Endangered Species Specialist in the District. (Go on to Step 6.)

.23 Screening Using the Environmental and Biological Assessment Processes.

A. Responsibilities of the BLM. The BPS requires continual updating to gain currency and greater specificity. Mandates to conserve State-listed species demand immediate specificity that the planning system cannot always supply. In the absence of adequate planning system data and considerations, the Bureau's immediate need for better information concerning State-listed species should still be met prior to EA and EIS preparation. If adequate information is not available in resource management planning documents to support a RMP decision or a specific BLM action, then compliance with the authorities and policies protecting State-listed species should be based on newly obtained information. This compliance must be documented in the applicable EAs or EISs (see .13C3). Any new information should then be inserted into the appropriate inventory and planning documents for future use.

B. Biological Assessments. It is the responsibility of the BLM, not the State agency, to gather and provide the biological information necessary for an adequate review--internally or in cooperation with the State--of the effects of its proposed activities and programs on State-listed species. Generally, the responsible State agency will, upon request, provide relevant data, reports, and recommendations for additional studies or surveys, but BLM is responsible for programming and budgeting its own compliance with the relevant authorities and policies (all charges are to the activity initiating the proposed action). The procedures for conducting special or accelerated biological assessment efforts to alleviate data inadequacies during activity plan preparation or EA or EIS preparation are as follows:

| <u>Responsible Office/Official</u>                                | <u>Step</u> | <u>Action</u>   |
|---|-------------|---|
| Biological Assessment Team or Endangered Species Specialist (BLM) | 6.          | Reevaluates and reanalyzes the proposed activity or program and all related documents.  |
|   | 7.          | Conducts a thorough search of files, literature, management plans, etc., to ensure that the best available information has been considered. |

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

- 8. Conducts an onsite inspection to evaluate the suitability of existing habitats for State-listed species.
- 9. Submits recommendations to the DM, including a determination of data inadequacies, if any.
- District Manager (BLM)                    10. Evaluates the proposed activity or program in light of the Bureau's responsibilities. The options at this point are similar to the options set forth in Step 3 above.
- Biological Assessment Team or Endangered Species Specialist (BLM)                    11. Determines what inventories, studies, and/or research are needed to alleviate data inadequacies.
- 12. Determines if assistance is needed from other agencies, universities, or authorities in collecting new data.
- District Manager (BLM)                    12a. If outside assistance is needed, requests or contracts for any necessary assistance.
- 13. Ensures that inventories, studies, and/or research sufficient to determine whether or not the proposed activity or program may affect a State-listed species, are conducted.
- Biological Assessment Team or Qualified Specialist (BLM)                    14. Analyzes the new information and determines if the proposed activity or program may affect a State-listed species.
- 15. Submits recommendations to the DM and delivers all new data to the District or Area biologist for updating the appropriate inventory and planning documents.
- District Manager (BLM)                    16. Evaluates the proposed activity or program in light of the Bureau's responsibilities. The options at this point are similar to the options set forth in Step 3 above.

.24 Development of Management Guidelines. (See Glossary.)

- A. Responsibilities of the BLM. Whenever a BLM District Manager concludes that the available information is adequate and determines that a

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

proposed activity or program may affect a State-listed species, he should modify the proposal, abandon it, or notify the nearest appropriate office of the responsible State agency (see Steps 3, 10, and 16 above). State agency staff specialists may be brought into these processes much earlier, but in many cases the consideration of State-listed species to this point will be within BLM. At the point of making a "may affect" determination, however, notification of the appropriate CDFG office is highly advisable.

**B. Management Guidelines.** The procedures for developing management guidelines to minimize the effects of a proposed action on State-listed species are outlined below. In general, time frames should be established on a case-by-case basis by the BLM District Manager and responsible CDFG official, but certain maximum time frames are suggested below. All BLM charges are to be coded to the activity initiating the proposed action.

| <u>Responsible Office/Official</u>         | <u>Step</u> | <u>Action</u>   |
|--|-------------|---|
| Responsible CDFG and BLM District Manager  | 17.         | <p>Collectively determine if it is appropriate and if it will be fruitful to develop management guidelines to minimize the effects of the proposed activity or program on State-listed species (within 20-days of the DM's notification of his/her "may affect" determination). Two conclusions might be reached:</p> <ul style="list-style-type: none"> <li>- The development of management guidelines will serve no useful purpose in which case this should be documented in writing prior to implementing the activity or program.</li> <li>- The development of management guidelines will lead toward better conservation and protection of State-listed species, in which case the appropriate BLM District Endangered Species Specialist should take the lead in developing them (go on to Step 18).</li> </ul> |
| BLM District Endangered Species Specialist | 18.         | Develops management guidelines in-cooperation with the Biological Assessment Team and/or CDFG biologists within the time frame established by the DM. These guidelines should be for the species involved and only in relation to the proposed activity or program, although development of guidelines for broader application may be a logical followup.   |

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

- District Manager (BLM)      19. Submit the draft management guidelines to the DM for his consideration.
- Responsible CDFG Official      20. Reviews and revises the draft guidelines, if necessary, in consultation with the District Endangered Species Specialist.
- Responsible CDFG Official      21. Submits draft guidelines to the responsible CDFG official.
- Director (CDFG)      22. Reviews and revises draft management guidelines in consultation with the BLM District biologist within the time frame established by mutual agreement with the BLM District Manager (30 calendar days).
- Director (CDFG)      23. Approves the draft management guidelines.
- Director (CDFG)      24. If necessary, reviews and revises draft management guidelines in consultation with staff specialists (suggested maximum: 15 calendar days).
- District Manager      25. Approves the management guidelines by signing the signature page and transmits them to the BLM District Manager.
- District Manager      26. Approves the management guidelines by signing the signature page and then implements the guidelines concurrently with implementing the activity or program.

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

## Glossary of Terms

-A-

activities or programs: all actions of any kind authorized, funded, or carried out by BLM in whole or part, examples of which include, but are not limited to: (1) actions intended to conserve listed species or their habitat; (2) the promulgation of regulations; (3) the granting of licenses, contracts, leases, easements, rights-of-way, permits, or grants-in-aid; or (4) actions directly or indirectly causing modifications to the land, water, or air.

aggregate consultation: a single consultation on a logical grouping of projects, activities, or programs of a similar nature which are expected to have a similar effect on one or more species or their habitat.

animals: any member of the animal kingdom, including without limitation any mammal, fish, bird, amphibian, reptile, mollusk, crustacean, arthropod, or other invertebrate, and includes any part, product, egg, or offspring thereof, or the dead body or parts thereof. As used here, the words "animals" and "wildlife" are interchangeable.

-B-

biological assessment: an analysis of the threatened or endangered species involvement in a particular project area. Preparation of a biological assessment is triggered in two ways: (1) as followup to a FWS response to a BLM request for endangered species information on proposed construction projects (see .1382c) or (2) as required during the preparation of an EA or EIS where the planning documents are non-specific or otherwise inadequate with regard to threatened or endangered species (see .1383b).

biological opinion: an official report by the Area Manager of the FWS issued in response to the formal request by BLM for consultation under the provisions of these regulations and representing the Government's position as to the expected effects of a proposed action upon the conservation of a listed species or its habitat.

-C-

compensation: the neutralization of an effect on a threatened or endangered species that eliminates jeopardy to the species. Compensation is often recommended in FWS biological opinions as a reasonable and prudent alternative. Compensation is distinguished from mitigation by the Interior Department Solicitors in that mitigation only lessens jeopardy to the species.

conference: a specific procedure similar to Section 7 consultation but for proposed listed species rather than officially listed species (see .1381). It is a mandatory procedure that results in a FWS opinion not

6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

unlike the biological opinions given during formal Section 7 consultations.

-C-

conservation: the use of all methods and procedures which are necessary to bring an endangered, threatened, or rare species to the point at which the measures provided pursuant to the ESA or similar State laws are no longer necessary.

construction project: any major Federal action authorized, funded, or carried out by a Federal agency which significantly affects the quality of the human environment and which is designed primarily to result in building or erection of manmade structures, such as dams, buildings, roads, and pipelines.

Critical Habitat: any air, land, or water area (exclusive of those existing manmade structures or settlements which are not necessary to the survival and recovery of a listed species) and constituent elements thereof, the loss of which would appreciably decrease the likelihood of the survival and recovery of a listed species or a distinct segment of its population. The constituent elements of Critical Habitat include, but are not limited to: physical structures and topography, biota, climate, human activity, and the quality and chemical content of land, water, and air. Critical Habitat may represent any portion of the present habitat of a listed species and may include additional areas for reasonable population expansion.

cumulative effects: the direct and indirect effects of the Federal activity or program under consideration together with the identifiable effects of actions that are interrelated or interdependent with the proposed activity or program. Indirect effects are those that are caused by the proposed activity or program and are later in time or farther removed in distance, but are still reasonably foreseeable. Interrelated actions are those that are part of a larger activity or program. Interdependent actions are those that have no independent utility apart from the proposed activity or program.

-D-

destruction or adverse modification: direct or indirect alteration of Critical Habitat which appreciably diminishes the value of that habitat for the survival or recovery of a listed species. Such alterations may include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be Critical.

-E-

endangered species: (Federal)--any species of plant or animal which is in danger of extinction throughout all or a significant portion of its

6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

range. (State of California)--any species, the prospects of survival and reproduction of which are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.

essential habitat: potential Critical Habitat.

-F-

federally listed species: those species of plants or animals classified by the Secretary of the Interior or the Secretary of Commerce as threatened or endangered pursuant to Section 4 of the ESA.

formal consultation: a written exchange of information and opinions between the BLM and the appropriate Area Manager of the FWS the purpose of which is to analyse the possible effects of BLM activities and programs on federally listed threatened or endangered species. This process is made mandatory by Section 7 of the ESA and results in a formal FWS biological opinion.

-H-

habitat: the place where an organism (plant or animal) lives. There are four major divisions of habitat, namely terrestrial, fresh water, estuarine, and marine.

-I-

informal consultation: an optional preliminary to formal consultation which has the following objectives: (1) establishing a working relationship between BLM and FWS which may not be attainable in a formal consultation atmosphere; (2) enhancing the exchange of information that may expedite the formal process; and (3) promoting early development of options and modification of approaches to identifying and resolving conflicts.

-J-

jeopardize the continued existence of: to engage in an activity or program which reasonably would be expected directly or indirectly to reduce appreciably the likelihood of the survival or recovery of listed species in the wild by reducing the reproduction, numbers, or distribution of a listed species.

-M-

management guidelines: prescriptions for maintaining or enhancing the habitats and survival of State-listed species or for mitigating or compensating for the impacts of BLM actions on such species. Management guidelines are internal documents, usually involving a single species and a particular proposed activity or program, although

6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

development of guidelines for broader application may be an efficient and cost effective followup.

may affect: an action which "may affect" a listed species is one which has an apparent direct or indirect relationship to the conservation and recovery of the species. For the purpose of implementing Section 7 regulations, actions which may affect a listed species include any action including, but not limited to, habitat development and research which will directly benefit a listed species; any action which will directly alter, modify, or destroy Critical Habitat or essential habitat, or render occupied habitat unsuitable for use by the species, or otherwise affect productivity, survival, or mortality; any action which will directly result in the "taking of a listed species" as defined in 50 CFR, part 17, Subpart A, Section 17.3; and any action involving the acquisition or disposal of land which is occupied habitat or suitable unoccupied habitat.

-O-

officially listed species: includes both federally and State-listed species of plants and animals.

-P-

person: an individual, corporation, partnership, trust, association, or any other private entity, or any officer, employee, agent, department, or instrumentality of the Federal Government, or any State or political subdivision thereof, or of any foreign government.

plant: any member of the Plant Kingdom, including seeds, roots, flowers, and other parts thereof.

proposed species: any species proposed by the Secretary of the Interior or Secretary of Commerce for listing as threatened or endangered pursuant to Section 4 of the ESA. Such proposals must be published in the Federal Register to be official.

-R-

rare species: (California only) any species that, although not presently threatened with extinction, is in such small numbers throughout its range that it may be endangered if its environment worsens.

reasonable and prudent alternatives: alternative actions that can be implemented in a manner consistent with the intended primary purpose of the activity or program and which the FWS believes would avoid the likelihood of jeopardizing the continued existence of listed species or destroying or adversely modifying Critical Habitat.

recovery: improvement in the status of listed species to the point at which listing is no longer required.

## 6840 - THREATENED AND ENDANGERED PLANTS AND ANIMALS

recovery team: a small group of on-the-ground professionals (usually three to seven) appointed by a FWS Regional Director to formulate a plan to bring about the removal of a threatened or endangered species from the official Federal list. Each team develops a recovery plan for its assigned species which identifies all factors affecting the species' biological status, the problems to be overcome, and the protective measures needed.

-S-

screening: the initial effort of the BLM to determine the nature and extent of the possible effects, if any, upon listed species which may result from a planned or ongoing action. Such screening must be competent and must result in a decision that the action in question will affect, may affect, or will not affect a species or its habitat.

species: any species or subspecies of fish or wildlife or plants (and, in the case of plants, any varieties), and any distinct population segment of any species of vertebrate fish or wildlife, which interbreeds when mature.

State-listed species: a species of plant or animal classified by the California Fish and Game Commission, pursuant to State laws and/or regulations, in categories implying potential extinction throughout all or a significant portion of its range, especially extirpation from California.

-T-

threatened species: any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

-W-

wildlife: see animals.

BLM LIBRARY  
RS 150A BLDG. 50  
DENVER FEDERAL CENTER  
P.O. BOX 25047  
DENVER, CO 80225

BLM LIBRARY  
RS 150A BLDG. 50  
DENVER FEDERAL CENTER  
P.O. BOX 25047  
DENVER, CO 80225

implications on the  
Endangered Species Act

KF 5640 .0446 1982

5, 1982  
Richard R.  
Species Act  
on the

| LIBRER'S CARD |                  |  |
|---------------|------------------|--|
| OFFICE        | DATE<br>RETURNED |  |
|               |                  |  |
|               |                  |  |
|               |                  |  |
|               |                  |  |

(Continued on reverse)

